A Feel for the Clinic:
Affect, Embodiment, and Simulation in the Pelvic Exam

BY

KELLY UNDERMAN

B.A., Case Western Reserve University, 2005
M.A., University of Illinois at Chicago, 2009

THESIS
Submitted as partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Sociology
in the Graduate College of the
University of Illinois at Chicago, 2015

Chicago, Illinois

Defense Committee:
Laurie Schaffner, Chair and Advisor
Claire Laurier Decoteau
Paul-Brian McInerney
Sydney Halpern
Sandra Sufian, Department of Medical Education

For Dad, who encouraged me but only ever got to see a work in progress.

ACKNOWLEDGMENTS

I wish to thank my dissertation committee: Laurie Schaffner, Claire Decoteau, Paul-Brian McInerney, Sydney Halpern, and Sandra Sufian. Their support, guidance, and feedback have been invaluable as I completed my dissertation. My committee chair, Laurie, offered so much encouragement and advice. I'm particularly indebted to Claire, who first took me on as a student and has mentored me through my graduate career. This dissertation would never have happened without her endless patience, thoughtful critiques, theoretical insights and guidance, and advice about the profession.

I had the privilege of being part of two incredible writing groups during graduate school. Thank you, Danielle Giffort, Lisa Berube, Alison Moss, Courtney Carter, Paige Sweet, and Jody Ahlm. Danielle in particular has been a wonderful friend since the very first day and as my 'sociology spouse' has offered critique, support, and humor.

I also had the feedback and support of several other mentors, without whom this dissertation would not be: Lorena Garcia, Anna Guevarra, and Laura Hirshfield. My thanks as well must go to the Center for Research on Women and Gender, who gave me the Alice J. Dan Dissertation Award to fund my research.

This dissertation could not have happened without the countless people who opened up to me about their work with GTA programs. Thank you to the medical faculty, the medical students, and the GTAs and support staff who participated. I'm especially grateful to the folks who first introduced me to the work of GTA programs when I was an undergraduate: Chance and Steph. The GTAs I first worked with and all the reproductive justice and feminist activists I came in contact while living in Cleveland and later Chicago have shaped the person and scholar I am today. Keep fighting the good fight.

My friends and family have been patient and forgiving during this research and writing process. I would like to thank my mom and dad, the latter of who unfortunately passed away before he could see the end of this project, and my sister Ana. Their love and encouragement carried me through graduate school. I also managed to find a wonderful second family when I met my partner, and I thank her parents and sisters for their support.

And lastly and most of all, thank you to my partner Laura. You are my favorite everything and I hope I make you proud of me.

KU

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

LIST OF APPENDICES

SUMMARY

Gynecological teaching associates (GTAs) are female-bodied individuals who teach medical students how to perform sensitive and competent gynecological examinations using the instructor's own body. GTA programs emerged in the 1970s and 1980s, and have since become ubiquitous to medical education (Beckmann, et al, 1988). During a teaching session, a GTA walks a group of two to four medical students through a complete pelvic exam, emphasizing correct technique and language, as well as other patient interaction skills. Despite a growing number of computer-based simulation models, which align with the increasing rationalization and science-oriented nature of medical education (Prentice, 2012), GTA programs remain a valued part of medical education.

My dissertation considers two questions: 1) what were the processes by which GTA programs came to be a part of medical education, and 2) why are GTA programs sustained in medical education? I focused on the historical development and current use of GTA programs at three major medical schools in Chicago. I combined qualitative interview and archival data from three groups of stakeholders: GTAs, medical students, and medical faculty.

Using literatures on embodiment, biomedicine, and science studies, I argue that the GTA program is a type of simulation program that inculcates the medical habitus in medical students. I demonstrate first how crisis in the field of medicine created opportunities for reformers of medical education and feminists in the Women's Health Movement to collaborate. I show how the GTA session allows medical students to rehearse the ethical and emotional dispositions required of physicians. I then explore the development of techniques of the body for physical exam through the GTA session. I conclude by working toward a notion of affective practice, or

the repetitive rehearsal of styles of experiencing, expressing, and managing ways of feeling until these become seemingly natural to the body.

I. INTRODUCTION

A first- or second-year medical student enters an examination room and meets a woman. This medical student will be performing a pelvic exam for the first time on her. The student is nervous. The student has knowledge about anatomy and how to perform this exam, but no experience of performing it. The person this student will examine resembles an actual patient: she is wearing a hospital gown, sitting on the exam table, and the room is set up like a real clinic room, but this woman is not actually a patient. She is a gynecological teaching associate (GTA), trained to provide instruction and feedback to medical students on pelvic exam technique. GTAs are one of a growing number of simulated patient encounters in medical schools, in which a trained layperson role-plays the part of a patient for instruction and evaluation purposes.

GTA programs emerged and became institutionalized during the 1970s and 1980s, a time during which biomedicine was being rapidly reorganized from within by the increasingly science-oriented nature of medical practice and from without consumerist pressures of patient health movements. Such programs represent what at first seems to be a contradiction: they are an experiential learning encounter based on a checklist. GTA programs seem to have emerged in part from the Women's Health Movement, which privileged embodied experiential knowledge and patient empowerment, and have become almost a requirement in medical schools, where science-driven decision-making and standardization have taken over knowledge-making practices.

The goal of this dissertation is thus two-fold: 1) I seek to understand by what processes GTA programs came to be included in medical education and 2) I seek to understand by what processes GTA programs continue to be included in medical education. I am puzzled by why

such an experience-centered practice could become so popular in medical schools, especially since medical school is notoriously difficult to change (Bloom, 1988). I consider the emergence of GTA programs and their current use at three major medical schools in Chicago. I pair archival sources with interview data from three groups of stakeholders: medical faculty, medical students, and GTAs and their professional directors.

The inclusion of GTA programs in medical education could be explained by cooptation. Biomedicine is a powerful institution, able to overcome and absorb challenges to it. As Thomas and Zimmerman (2007) have shown, biomedicine met the consumerist challenge of independent women's health clinics during the 1980s and 1990s by absorbing them into hospitals. This cooptation has repackaged empowerment through self-knowledge as empowerment through consumerism. However, this narrative of cooptation tends to paint both the Women's Health Movement and biomedicine as homogenous and supports a top-down analysis of power.

Similarly, the current use of GTA programs could be explained by the science-driven transformation of biomedicine that altered medical school during the 1980s. The broader movement of using laypeople to simulation patient encounters matches up with the goals of being able to control and thus standardize all aspects of medical education and medical decision-making (Timmermans and Berg, 2003). And yet, what seems to remain valuable about GTA programs is that which cannot be strictly quantified and measured: the experience of doing a sensitive examination.

The central argument of this dissertation is that the experience-based learning that occurs in the GTA session prepares medical students to embody the changing landscape of medical culture. I argue that GTA sessions teach medical students how to feel like doctors in a triple sense: sense of oneself, emotional disposition, and tactile feeling. I show how changes in

biomedicine helped pave the way for the emergence of GTA programs in Chicago in the 1980s. I then show how GTA programs teach medical students how to embody professionalism. I also show how GTA programs teach medical students about how to develop tactile perception as part of disciplining patient-bodies.

The outline of the dissertation is as follows. Chapter 2 is a review of the literature and Chapter 3 considers my methods. In Chapter 4, I consider how GTA programs came to be a part of medical school over the course of the 1980s. Prior to this transformation, most medical students performed their first pelvic exam on a clinic patient, who was often used as a passive object. In contrast, GTAs are paid laypeople who use their own bodies to teach medical students how to perform a comfortable, competent, and patient-friendly pelvic exam. This chapter considers how it was that pelvic exam went from being taught on "anonymous vagina[s]" to being taught by women who talked back. I consider the pelvic exam as an assemblage (Deleuze and Guattari, 1987; Murphy, 2012). I use one Chicago medical school as a case study to explore how it was that the pelvic exam became a target of feminist politics, and how feminist projects about control and self-discovery became interlocked with concerns in biomedicine over standardization and the rationalization of work (Berg, 1997). I argue that the pelvic exam was reassembled as feminists involved in the Women's Health Movement allied with reformers of medical education to develop the GTA program as this medical school. As the program became successful, it was reassembled again through medical educationist efforts to standardize and quantify its value. This led to a program that lost its overt political impetus, but remains linked to its feminist history.

In Chapter 5, I turn to the role that GTA programs play in medical student socialization. Studies of culture in medical schools have demonstrated the ways in which medical students are

socialized to embody the professional behavior of physicians (Becker, 2002; Hafferty and Castellani, 2009; Lempp, 2009). One such milestone in medical school is the first time that a medical student performs a female pelvic exam. This sensitive exam requires a medical student to maintain a professional demeanor while examining a part of the body that carries a sexual association. Medical students at most schools in the United States first experience this milestone through the use of GTAs. This chapter explores a tension in these types of teaching encounters between artificiality and authenticity. In order to learn professional behavior, medical students must examine a real person, but they cannot examine a real patient for ethical reasons. I argue that GTAs endeavor to maintain a sort of bounded authenticity (Bernstein, 2007): an encounter that has a genuine emotional resonance for the medical student but that is limited in its intensity, duration, and scope. The work that GTAs put into maintaining this authenticity in an artificial context requires careful management of their own emotions and bodies to manage the medical students' emotional experience (Hochschild, 2012).

In Chapter 6, I show how medical students learn to make objects of knowledge during the GTA session. Learning the pelvic exam requires medical students to develop new forms of bodily habit (Merleau-Ponty, 1967; Bourdieu, 1977; Crossley, 2001). GTAs' use their own embodied experiential knowledge to teach medical students how to perform the pelvic exam. I show how developing new bodily habits begins with new forms of somatic modes of attention (Csordas, 1993), or ways of attending to and with one's body. In doing so, I claim that learning new forms of embodiment requires an affective entanglement (Myers, 2008) between the body of the learner and the object of knowledge. I then draw from scholarship on materialization (Butler, 1993; Murphy, 2006, 2012; Barad, 2007) to consider how patients are constructed in the GTA session.

In my conclusion, I consider the implications of my research. Particularly, I develop the notion of "affective practice" to account for the embodied ways of experiencing, managing, and expressing emotion that are used during the pelvic exam, and how these practices are shaped by medical culture or constrained by structure.

II. LITERATURE

"But science and skill do not make a physician; one must also be initiated into the status of physician; to be accepted, one must have learned to play the part of a physician in the drama of medicine." (Becker, et al, 1961: 4)

Medicine is full of strange attitudes, behaviors, rituals, emotional dispositions, and so on, that a medical student must in order to become a "real" doctor. The overarching theoretical framework that I use in this dissertation is the medical habitus. In this chapter, I review literature on medical culture, medical school, and the habitus to explain why it is that I find this concept most useful for this research. I begin by outlining Bourdieu's work on the habitus and how this concept has been interpreted by other scholars. I provide a brief outline of sociological research on medical school. I then offer some notes on affect and the habitus. I conclude with a brief sketch of my contributions to these literatures.

The Habitus

Pierre Bourdieu's (1977, 2000) theory of practice explains social life by bridging phenomenological (or, individuated and experiential) accounts with structural accounts. Put very simply, Bourdieu's theory of practice is a way of understanding the subjective content of why people do what they do within the particular types of environments that they inhabit. His work is deserving of much careful analysis, but here I provide only a broad sketch. His concept of the habitus is best contextualized within his work on fields. He describes fields as:

> "[…] structured spaces of positions (or posts) whose properties depend on their position within these spaces and which can be analyzed independently of the characteristics of their occupants (which are partly determined by them)." (1993: 72)

Fields therefore have three key qualities: they are structures spaces with their own rules, their form can be studied as separate from the people in them, and they are shaped by the people in

them. Fields are spaces of struggle: "The structure of the field is a state of power relations among the agents or institutions engaged in the struggle" (Bourdieu, 1993: 73). There are various types of capital at stake in any given field, and it is over capital and with capital that participants engage in struggle.

This is very much a sporting metaphor. In order to "play the game" in any field, one must be appropriately equipped. Bourdieu (1977, 1993, 2000) developed his concept of the habitus to refer to the ways in which the individual is unconsciously oriented to the field. The habitus is "understood as a system of lasting, transposable dispositions which, integrating past experiences, functions at every moment as a matrix of perceptions, appreciations, and actions" (Bourdieu, 1977: 83). Bourdieu calls the habitus the "feel for the game," hence the title of my dissertation. The habitus is 1) acquired, 2) operates below the level of conscious awareness, 3) varies by social location, and 4) results from pedagogical work (Bourdieu, 1977, 1993, 2000; Wacquant, 2014). The habitus can be thought of as a set of practices and dispositions that help the individual cope with uncertainty and change in the field; it is neither conscious nor deliberate, but at all times allows the individual to pursue her own goals within the struggle of the field.

Habitus is typically used to describe durable dispositions instilled in the individual without awareness or intention as part of childhood. However, in his later work on the habitus, Bourdieu (2000) differentiated the generic habitus from the specific habitus. The specific habitus encompasses those dispositions that are "gradually, progressively and imperceptibly" (2000:11) transformed after intentional entry into a field. Building upon Bourdieu's work, his student Loïc Wacquant calls these primary and second habitus. Wacquant defines the secondary habitus as "any system of transposable schemata that becomes grafted subsequently, through specialized pedagogical labor that is typically shortened in duration, accelerated in pace, and explicit in

organization" (2014: 7). According to Wacquant, the greater the distance between the generic (or primary) habitus and the specific (or secondary) habitus, the "the more difficult the traineeship, and the greater the gaps and frictions between the successive layers of schemata, the less integrated the resulting dispositional formation is likely to be" (*ibid*: 8). Wacquant's work is particularly useful here for understanding the pedagogical work of inculcating the habitus: "If you want to pry into habitus, then study the organized practices of inculcation through which it is layered" (Wacquant, 2011: 86). Notions of the secondary habitus have been used to explain ballet (Wainwright, Williams, and Turner, 2006), boxing (Wacquant, 2003, 2014), and, as I will explain later in this chapter, medicine. First, though, I sketch an outline of the literature on the sociology of medical school.

Sociological Studies of Medical School

A number of scholars have studied this process from a sociological perspective in an attempt to understand consistency and change in the medical professional. One of the first studies of medical education was Robert Merton's *The Student-Physician* (1957), which merged concerns over the rapid transformations of medicine in the post-WWII period with sociological traditions on professions and organizations. Largely a functionalist account of medical school, Merton's book has been less influential than Howard Becker and his colleagues' study *Boys in White* (2002). The title, unintentionally ironic, captured the spirit of the symbolic interactionist perspective of the study. Becker and his colleagues turned a critical eye to the socialization experiences of medical students as they considered the rites of passage and dilemmas that medical students faced as they prepared to become doctors. They argued that medical school is a prolonged training period in which medical students must learn their how to "play their part" in

the medical profession.

Becker and his colleagues were followed in the 1970s by Eliot Freidson's work (1972) on the professional dominance of medicine, which focused on the structural organization of medical schools and hospitals as causal mechanisms for medical socialization, and Renee Fox's (1979) work on 'training for uncertainty' and the development of 'detached concern' in medical school. Fox in particular focused on rites of passage like the anatomy lab as crucial moments in professional socialization. These studies showed how the structure of medicine tended to reproduce itself through the training of new physicians. Similarly, Samuel Bloom (1988) blamed the structural organization of medicine and its emphasis on scientific research at the expense of humanistic values for a century of "reform without change" in medical school curricula.

However, recent scholarship on the sociology of medical education has shifted toward culture and socialization explanations. The hidden curriculum perspective argues that medical students learn about professionalism and medical values through implicit lessons in the classroom and in the clinic (Hafferty, 1998; Hafferty and Franks, 1994; Hafferty and Castellani, 2009). Hafferty and Castellani (2009) argue for a consideration of medical education as a complex system with a learning environment, consisting of both formal and informal, and manifest and latent, lessons. The hidden curriculum then is an alternative learning process that instills professional socialization, medical values, ethics, and attitudes in medical students through lessons that are not acknowledged or intentional.

These insights about the hidden curriculum have been applied to studies about medical school culture (Lempp and Seale, 2004; Lempp, 2009). Medical school culture refers to the "customs, ideas and social behavior of teaching staff and undergraduate medical students within a medical-school" (Lempp, 2009: 72). The hidden curriculum in medical school enculturates

medical students into the emotional neutralization, rituals of professional identity, and acceptance of hierarchies of biomedicine (Lempp and Seale, 2004). This perspective demonstrates that medical student behavior and disposition is shaped by the learning environment and shared understanding of medical student, not just the formal curriculum that medical students learn in the classroom and in the clinic.

Studies of the hidden curriculum and professional socialization largely follow a Goffmanian and/or symbolic interactionist perspective. Another theoretical perspective has lately been gaining ground the literature. Drawing from a Bourdieusian tradition on field theory, some scholars have begun to study medical schools as fields and professional dispositions as the medical habitus (Sinclair, 1997; Luke, 2003; Lempp, 2009; Brosnan, 2009, 2010). Sinclair (1997) first used the concept of medical habitus in his ethnography of a London medical school, which reproduced Becker et al's (1961) study and added to it Bourdieu's work on the habitus. A psychiatrist himself, Sinclair examined the acquisition of medical dispositions in medical students in terms of knowledge, experience, and responsibility along the path from medical school applicant to junior doctor. His use of the concept of the medical habitus breaks knowledge into two forms: that which is public and communal, and that which is personally acquired through experience. He paid particular attention to the development of a psychological schema in medical students, noting that medical students often enter with an idealistic notion of helping people and exit their training with an attitude of cynicism as they come to embody the professional culture of competition with one another and attitudes toward the patient. His focus on emotion centered on the development of clinically detached modes of feeling and the gendered differences in the permissibility of expressing emotion.

Caragh Brosnan (2009, 2010) has extended Bourdieu's concepts of the habitus and the

field to medical education in her examination of two schools in the UK. She argues (2009) that Bourdieu's work provides a framework for thinking about the relationship between institutional arrangements in medicine and student practices or cultures. The durability of the structure of medicine as a field and the reproduction of medical habitus helps explain both the valuing of "competence" over caring in medical education and the "reform without change" in terms of the lack of change effected by circular change. Brosnan (2010) uses the concept of the field as well to show how medical schools compete with one another for various forms of capital, including students, research funding, and prestige. The constant reproduction of the field through struggling for these forms of capital means that even though circular reforms may occur, the core values of the field do not change. So long as medical schools buy into the importance of these types of capital, they will be unable to change.

The Medical Habitus and Affect

One of the core tensions of the medical habitus is often that competency displaces caring (Brosnan, 2009). Medical students and physicians alike have difficulty reconciling the scientific disposition required of medicine with their idealistic notions of caring and compassion (Sinclair, 1997; Brosnan, 2009). Studies of medical schools have shown that medical students enter with a desire to care for patients and reduce human suffering, and leave feeling cynical and depersonalizing their patients. Becker and his colleagues (1961) argued that the adoption of a cynicism is a response to the institutional pressures of the hospital and the emotionally taxing work of dealing everyday with suffering and death. In addition, important rituals such as working with cadavers in the anatomy lab socialize medical students to discard feelings of fear, disgust, or horror, and to view patients as body-objects (Hafferty, 1988). Fox (1988) called this lack of

emotional involvement developed through such encounters "detached concern".

This literature on emotional socialization in medical school makes it seem as though emotion is being socialized *out of* medical students through this shift from compassion to competence. As I will show in my dissertation, the medical habitus involves a particular way of feeling embedded in a specific cultural context. This is why it is useful to think about emotions in medical school within the context of the medical habitus. As a secondary habitus, the medical habitus includes an affective dimension. Deborah Gould speaks of this in terms of the emotional habitus in her historical analysis of social movements in medicine. An emotional habitus is "the socially constituted, prevailing ways of feeling and emoting, as well as the embodied, axiomatic understandings and norms about feelings and their expression" (Gould, 2009: 10). The emotional habitus "is a dimension of power that we tend to overlook" (*ibid*: 40), and yet it is important to consider because rules and norms about what we feel and how we express that shapes the social world. However, because the emotional habitus is about affect, it can also disrupt relations of power, as Gould shows through her analysis of how anger shaped the protest of the HIV/AIDS movement of the late 1980s and early 1990s.

Gould shows how the constitution of the habitus is shaped by affect, which, following Gilles Deleuze and Felix Guattari (1987), can be thought of as embodied intensity that operates belong the level of language. Affect refers to "capacities to feel, to sense, and to be embodied" (Murphy, 2012: 72). Affect is produced in the circulation of bodies, discourses, and subjectivities. Affect is not an individual psychological property, but is instead produced and circulated in social relationships. Ahmed (2004) contends that affect is produced in historically specific circulations among subjects, which she called affective economies. "In such affective economies, emotions do things, and they align individuals with communities" (Ahmed, 2004:

119). Thus, capacities to experience and display emotion, and the resultant modes of embodiment, are produced in specific historical and cultural contexts, and become bound up with the political and economic structures in which they are valuated.

Contributions

What makes my dissertation different from the above studies of medical habitus in medical education is my focus. First, I study the development and acquisition of medical habitus as an iterative process involving both medical students and patients. Studies of medical education and studies of patient experiences tend to abstract one from the other. I have tried as best as possible include all participants in the field of medical education. Second, I consider the technological, social, bioethical, and scientific changes that have rapidly reorganized biomedicine since the 1980s (Clarke, et al, 2003), including what Rose (2007) calls the politics of life itself, or the neoliberal activation of patients as self-responsible, self-governing subjects morally and personally responsible for their health care regimes. Third, related to the above, I consider the medical habitus within simulation. With the exception of Prentice's (2012) work, the medical habitus has not been studied within the seemingly artificial milieu of simulation labs and simulated patient encounters. I draw from theoretical insights on the body as an object of knowledge (Foucault, 1994) and on embodied experience (Merleau-Ponty, 2002) to explore the acquisition of medical habitus as a fleshy, embodied, messy, and often intimate process. Fourth, following the above, I draw from insights on affect (Ahmed, 2004; Murphy, 2012) to understand how embodied ways of feeling (both emotional and tactile modalities of feeling) are produced in medical schools.

III. METHODS

For this research, I used three Chicago-area medical schools to examine the historical development and current practices of gynecological teaching associate programs. I combined archival data with interviews from three groups of stakeholders: GTAs and their professional directors, medical students, and medical faculty. In this chapter, I outline my justification for selecting Chicago as a research site, my data sources, my sampling methods, and how I approached analysis. I conclude with some remarks on positionality and reflexivity.

The Site of the Research

Chicago has a rich history for both medical education and the Women's Health Movement. Feminist activism around women's health and reproductive justice flourished during the 1960s and 1970s and remains vibrant and varied today. For example, the feminist underground abortion network, Jane, was established here. Several feminist health clinics were established during the 1970s and at least one of them remains in operation today as the Chicago Women's Health Center (formerly the Emma Goldman Clinic). Thus, as a city with a complex and interesting history of feminist health activism, it was a good choice for digging into the feminist roots of GTA programs.

Medical education also has a rich history in Chicago. The University of Illinois at Chicago School of Medicine was one of three schools in the United States that served as important centers for the early medical education reformers of the 1950s and 1960s. Some of the most solidly developed and earliest accounts of GTA programs come from the University of Illinois at Chicago. In addition, there are a number of well-established and newly developed medical education programs and schools for ancillary medical occupations in Chicago. Being

able to explore the similarities and differences among the histories and current practices of these programs allowed me to more fully understand how and why GTA programs came to be included in medical education. For this research, I chose to focus on three major medical schools.[1]

Despite the numerous medical schools and ancillary health professions programs in Chicago, the community of GTAs is fairly small. There are no formal networks or professional associations for GTAs, either in Chicago or at the national level, and they are not, strictly speaking, employees of the schools they work for. As such, tapping into their informal networks is one of the only ways to connect with them. Prior to beginning this research, I worked in Chicago as a GTA, and so I had established access to this population. This "insider participant" role provided beneficial knowledge prior to beginning my study of the major actors and institutions involved (Lofland, et al, 2006). I had a sense of which individual to approach first, which schools had the most well established program, and what students learned. I used this knowledge to select the schools that I recruited from and to connect with GTA participants.

Data Sources

My research centered on gathering data from the two main sources: interviews and archives. This approach allowed me to assess GTA programs from three groups of major stakeholders and claims-makers: GTAs and professional directors, medical faculty, and medical students. I chose to examine archival data to assess the claims made by these groups against the historical documents that they have produced (Davidson and Layder, 1994). Focusing these three groups allowed me a form of triangulation, which "involves looking at the research topic or

[1] Of these three schools, I have chosen only to name the University of Illinois at Chicago because of the existing archival record on it. The other two schools go unnamed.

problem from a number of different vantage points in order to check whether similar pictures are produced" (Davidson and Layder, 1994: 53). This approach serves as a method of ensuring the validity of findings (*ibid*).

Interviews allowed my participants greater integration into my research by allowing participants to actively construct narratives of their lives and experiences **(**Davidson and Layder, 1994; Hesse-Biber, 2006**)**. The use of semi-structured interviewing allowed me more flexibility in gathering and interpreting data. Because I was interested in how the social construction of the tension between scientific knowledge and embodied experiential knowledge influences how medical students learn the gynecological examination, interviewing was an essential methodology for exploring meaning-making, subjectivity, and the value of experience in the teaching encounter (Davidson and Layder, 1994; Hesse-Biber, 2006). My interviews allowed me to explore more deeply how participants experienced the teaching encounter and how they interpreted those experiences, which varied based on the social structures of race, class, gender, and sexuality, and the historical context, in which they were imbedded (Scott, 1993).

Sampling

My approach to sampling relied more on following the actors (Latour, 1987) than on preset sampling frames (Davidson and Layder, 1994; Lofland, et al, 2006). By this, I mean that I approached GTA programs as a type of network in which my three major stakeholders are involved. This allowed me a clearer empirical picture of the stakeholders and key players in the historical development of these programs. I started with purposive sampling by contacting key individuals I identified through medical school websites and asked each participant for referrals to other potential participants (Davidson and Layder, 1994). I snowballed out from there.

1.) Interviews with Gynecological Teaching Associates and Professional Directors

Interviewing GTAs and professional directors from more programs allowed me to understand more about the state of this occupation as a whole. I began by using purposive sampling (Davidson and Layder, 1994; Lofland, et al, 2006) to recruit GTAs and professional directors. I initially asked two coworkers to circulate the call of participation among their acquaintances. I then contacted professional directors and program managers through the websites maintained by medical schools, as most schools provide some sort of contact information for the managers of their clinical performance labs. I also asked these professional directors both for their participation and to circulate the call for participation to the GTAs that work for them. In total, I conducted twenty-six interviews with gynecological teaching associates and professional directors.

In order to be eligible for participation in this research, an individual must have worked consistently as a GTA, have managed these programs in a liaison capacity between GTAs and schools, or have worked as a standardized patient with experience in teaching the pelvic examination. This allowed me to include former GTAs to understand how the experience of this type of teaching encounter may have varied historically (Scott, 1993). While I concentrated on interviews with those who work or have worked in the greater Chicagoland area, I included some interviews for GTAs in other areas to increase the richness of my data on experiences and workplace practices.

2.) Interviews with Faculty and Staff

In order to understand how these programs affect medical students and why they are utilized, I interviewed other sources. My interviews faculty and staff focused on the pedagogical goals of this type of education and their knowledge of the historical development of the programs. I contacted faculty and staff through medical school websites and asked them to pass along the information sheet for students. I also identified key players in the historical development of these programs from the academic literature. In total, I conducted six interviews with faculty and staff.

To be eligible for participation in this research, an individual must be on the faculty of an accredited medical school, and be or have been involved in the direct oversight of these programs and their professional directors or in the educational process of medical students. This way, I limited my sample to those working more closely with GTAs and those who have the largest stake in the development of the programs, but I was not limited to medical doctors specifically.

3.) Interviews with Medical Students

There is some evidence as well that students were involved in the push for these programs to be implemented, so I also interviewed former students involved in the early programs. My interviews with students focused on the experience of this type of education and how medical students both perceived and interacted with the gynecological teaching associate that they worked with. For confidentiality purposes, I was only able to reach this category of students by referral from others in my sample. In addition to asking faculty to pass along a call, I also posted notices requesting participants at medical schools in the Chicagoland region and

attended clinical skills workshops to pass out flyers about the study. I conducted twenty-three interviews with current and former students. Of the current medical students I interviewed, these were evenly divided by gender.

For my purposes, I limited my sample to current and former students in medical schools only, even though gynecological teaching associates teach a variety of students. And, as I stated above, I recruited from only three medical schools in Chicago. I chose not to recruit from a fourth school in part because I was unable to gain access to them and in part because I used to teach in their program and did not want the possibility of interviewing medical students who I had taught as a GTA.

4.) Historical Records

While interviewing allowed me to focus on the subjectivity and meaning-making of my participants, archival sources provided me with evidence of contemporaneous accounts of medical education and the program (Davidson and Layder, 1994). Archival sources allowed me to understand how participants constructed appropriate practice at the time of the events themselves (*ibid*). Finally, archival sources provided a more detailed account of what was considered accepted in the medical community in terms of the social construction of scientific objectivity in practice (Harding, 1998).

There is a lacuna of evidence on the history of the development of these programs. In order to confirm the historical information I gathered both from secondary sources and in my interviews, I gathered source materials from medical school archives, archives of the American Association of Medical Colleges, newspapers, and academic journals. Specifically, I was interested in reports published in peer-reviewed journals by medical school faculty on these

programs, annual reports and faculty meeting minutes for department of gynecological, popular newspaper and magazine coverage, and presentations and papers made at AAMC annual meetings. While my focus was specifically on Chicago, I gathered some archival materials at the national level to situate Chicago medical schools within broader national debates about these programs. Here, I looked for peer-reviewed articles and reports generated by the AAMC. I was also able to gain access to the private collection of one of the originators of GTA programs in Chicago, who had a number of files of hand-outs, lecture notes, and other development materials in storage. I ended with several hundred pages of documents.

Taken together, archival and interview materials allowed me to begin to answer why these programs emerged and why they continue to be sustained in medical education by exploring themes of experience, standardization, and best practices. Archival materials supplemented interviews to frame my research historically, while interviews also allowed me to explore how these programs presently serve the educational objectives of medical schools in Chicago.

Analysis

I was interested in the accounts that different groups of stakeholders present to explain the origins of gynecological teaching associate programs. However, I analyzed these accounts keeping in mind that professions construct narratives to account for their emergence and practices, and therefore did not take these accounts at face value (Ventresca and Mohr, 2005). Instead, I analyzed and interpreted my qualitative and archival data as evidence of legitimating discourses, meaning, accounts presented by both biomedicine and activists for their respective roles were important (Davidson and Layder, 1994; Ventresca and Mohr, 2005). I sought out

multiple sources of contemporary and historical information to confirm the "facts" presented as true in the various accounts (Davidson and Layder, 1994).

During my interviews, I took detailed notes and used these to begin initial coding and to guide additional interviews. After each interview, I wrote memos to myself to help this process of identifying key themes, discourses, and processes. In this way, I was able to know when I had reached data saturation (Davidson and Layder, 1994), or the point when no new information came from each additional interview. I then transcribed all of my interviews or used a transcription service, and I used a combination of open-coding in Word and guided coding in the web-based program Dedoose to track primary and secondary codes and themes. I compared these to the notes and memos I took during the interviews to guide the process.

Once I had completed this initial coding, I used situational analysis (Clarke, 2005), an analytic technique that draws from grounded theory and uses situational maps, social worlds maps, and positional maps to lay out the key actors, discursive positions, and claims of a given phenomenon. As a visual learner and embodied thinker, I found it helpful to sketch out the relationships among people and organizations and/or among concepts and discourses. I also used this technique to develop timelines that tracked key events and key developments in the discourse around GTA programs and medical education reform.

Positionality and Reflexivity

Typical methods textbooks in the social sciences bring up issues of reliability, validity, and generalizability. With qualitative data, generalizability is recognized as a false goal; however, issues of reliability and validity linger (Davidson and Layder, 1994). Reliability is a question of how a researcher knows measurements are accurate and validity is a question of how

a researcher knows what is being measured (Lofland, et al 2006); both concepts are issues of whether or not a research is *really* getting at the truth. As Donna Haraway (1988) argues, feminists have become concerned with the concept of the truth as purported by scientists. Rather than claiming that knowledge can be produced in an unbiased, impartial, and value-free way, Haraway and other feminists argue (Harding, 1998; Wolf, 1996) that the truth is a social product. This is not to say that all knowledge is changeable and relative to the individual's position. Haraway's use of vision (1988) elucidates the feminist argument: just as we see the world selectively from a situated, embodied position, we have access to the truth from situated, embodied positions. Issues with reliability and validity become then not about measurement and bias, but about opening the interpretation of data and thus the truth to multiple situated, embodied positions. Harding (1998) calls this strong objectivity: exposing science to an external critique. Feminists have come to practice this in a variety of ways, most notably by collaborating with research participants to analyze the data (Wolf, 1996) and triangulation (Davidson and Layder, 1994). Collaboration is a technique that I employed in my work, both in interviews by reflecting what I thought I was finding back to my participants and in the analysis process by asking participants to respond to my findings. I shared drafts of my chapters with several of my GTA participants and invited one of them in particular to attend talks I gave in the Chicagoland area. I then met with her over coffee to talk about her thoughts and impressions on my work. I also shared my work with several of the medical faculty I interviewed to hear their thoughts and impressions. Interviewing three groups of stakeholders allowed me to triangulate my findings. I compared the themes and issues I was finding in each set of interviews to the other sets of interviews to test the version of social reality constructed by each group against the others'.

I also triangulated my findings by drawing on archival sources. As Boyd (2008) points out, reliability and validity in historical research is more challenging. Historical research privileges what is recorded or recalled by participants. Accounts which are not recorded or not preserved are lost and cannot contribute to the picture of the social world. I frequently ran into this problem, as many of the archival sources I wanted to find, such as notes from early feminist meetings, had been lost or destroyed. I was able to access the private document collection of one of my participants, but one of the key innovators of the first Chicagoland GTA program told me that she had destroyed all of her relevant documents just six months before I contacted her. I can only speculate about what might have been in those documents. In addition, doing historical interviews posed challenges. Human memory is faulty and individuals' recollections of their lives are structured by the shifting landscape of available subject positions and discourses (Boyd, 2008). Some of the questions I asked either my participants simply didn't remember or else they recalled very different things. To address issues of memory and shifting discourses as much as possible, I relied on written records, which served as evidence of their contemporary discourses and meaning-making projects. I was also unable to contact those who had fallen out of contact with their peers or whose names weren't recorded. This was particularly problematic with GTAs. A major player in the first program remains unidentified, as my participants could only remember her first name (a nickname) and no one could remember where she had moved to after leaving Chicago.

As a feminist researcher, I encountered several dilemmas in my research and several points of consideration (Wolf, 1996). I was attentive to differences in power and social status with my participants, the power I hold as a researcher, and my own gendered, class, and racialized position. My selection of participants was somewhat uneven in terms of differences in

power and privilege (Wolf, 1996). My sample of GTAs, for example, consisted largely of white, middle-class[2] women[3] with at least some college education. Given the origins of GTA programs in the Women's Health Movement, this homogeneity seems to reflect the homogeneous nature of the mainstream feminist health movement (Murphy, 2012). It also reflects, of course, the biases of the individuals doing the hiring and assembling the GTA programs. When I probed my participants about race and class, I received vague answers about the "ideal" GTA who is well-spoken and assertive, which is in line with existing critiques of the middle-class, self-responsiblizing bent of mainstream health activism (see Murphy, 2012, and Epstein, 1996). My sample of medical students was more diverse. While I did not ask medical students to self-identify their race and/or ethnicity, my sense is that they were more diverse, a reflection on the growing diversity in medical schools.

Some of my participants knew me as a coworker, which presented important challenges to the dynamics of the interview (Wolf, 1996). Interviewing current and former coworkers required me to be especially attentive to maintaining confidentiality, as my participants would frequently mention one another to me, and ask who I had spoken to and what about (Lofland, et al, 2006). It was impossible to keep them from mentioning doing interviews with me to one another, but I myself did not reveal any of this information. The intimacies of the job bolstered and strained the "friendship" (Kirsch, 2005) in the interview in interesting ways. Knowing that I also had worked as a GTA may have given some of the GTAs greater freedom in discussing the intimate details of allowing strangers to do such invasive exams on their bodies. However,

[2] I'm using class here in more of a habitus sense than in a strict economic sense. The class backgrounds of the GTA participants were mixed, but the general disposition of assertive engagement with biomedical authority is middle class. For example, I myself come from a working class background, but became socialized into this middle class habitus through my education. I suspect that a similar phenomenon happened for some of the GTAs I interviewed.
[3] I use women intentionally here. I was able to interview three GTAs who identified as trans or genderqueer, but none of them worked in Chicago. Chicago seems to have a culture that emphasizes stricter adherence to typical (heterosexual) gender presentation.

knowing that I had worked with some of their colleagues may also have encouraged some of them to stay quiet about more aggressive critiques of one another. In addition, I was keenly aware that even though I attempted to practice ethical research and minimize power, I still held authority as a researcher (Wolf, 1996). I often found myself in the position of having to explain that I was not yet a doctor and no, I was not that kind of doctor, to the GTAs who did not know me. Even among those who did, my status as a university-affiliated doctoral candidate gave me a certain prestige. One of them in particular liked to ask my opinion on certain practices in the sessions as though I could speak with authority for all of biomedicine.[4]

My interviews with medical faculty and medical students posed a different set of challenges. I went into these interviews on the assumption that this was a clear-cut case of "studying up" since sociology is less prestigious compared to medicine and since I didn't even have a PhD. However, perhaps owing to the interdisciplinary nature of medical education departments, the medical faculty I interviewed treated me as a colleague. None of them "talked down" to me when I asked uninformed questions about medical school curriculum or medical procedures. Equally, medical students treated me as a colleague, perhaps because I could relate to them about the pressures and trials of graduate education. Gender presented challenges and sexuality was a constant specter, since I asked detailed questions about the affective experience of intimate exams. At the time, I tended to present as a fairly straight-appearing woman. Men certainly talked to me differently in some ways when I interviewed them face-to-face as compared to over the phone. For all of the medical students, it seemed that the lesson of

[4] For example, during the research, new guidelines came out about teaching the self breast exam (SBE). This is a politicized topic for the GTAs I spoke with, since the recommendations to stop teaching the SBE flew in the face of their deeply-held beliefs to educate women about their own bodies and empower them to become comfortable and familiar with their anatomy. This participant in particular asked me in depth my thoughts on these recommendations and to explain why "they" would think this was a good idea. I had to be careful to express my opinion as a GTA and feminist health activist from my interpretation of the recommendations as a critical medical sociologist.

desexualizing intimate contact had been deeply imbedded in them. I discuss this in this dissertation as professionalism. I could practically see the gears turning in medical students' heads about how to discuss a taboo subject honestly—touching a stranger's vagina—without appearing unprofessional. This manifested in a number of pauses, "you know"s, and other inferred references to sexuality.

I also had to navigate how my own experiences as a GTA influenced how I perceived and interpreted my research. I chose to consider my own experience as a type of data that I could actively draw from to test my findings against (Church, 1995; Davidson and Layder, 1994; Haraway, 1998). I consider this a version of what Kathryn Church (1995) calls critical autobiography. While this research is not about me, I am present in it. All knowledge is situated (Haraway, 1988), and my group membership is one vantage point from which to consider this research. Since this work is very much about affect and habitus, both of which operate below the level of conscious awareness, the things-I-knew-but-could-not-name shaped my questions and my analysis. Ringrose and Renold (2014) describe how these affective intensities in research co-create (or 'intra-act' with) the knowledge that the research intends to create. My own embodied memories of the pelvic exam shaped how I read and understood GTAs' accounts of teaching and learning. As I thought through and wrote about the development of embodied habit and embodied experiential knowledge, my own versions of these informed my work. And, as I said, I am an embodied thinker. This manifested through the pictures and charts I drew, but it also manifested in a certain amount of "acting out" of the techniques of the pelvic exam and the dispositions of professionalism as I wrote sections attempting to describe these.[5] Lastly, I

[5] For example, the only way I have been able to present a discussion of the hand position for the bimanual exam has been to literally act it out during talks. I remain frustrated that the chapter on this does not fully encapsulate the problem. Words can't grasp the experience.

continued to work as a GTA during analysis and writing, and I often found myself thinking through problems in my work while I was teaching. Some of my best insights came from hurriedly scribbled memos while I sat in a hospital gown at work.

Limitations

My research was limited in part by the lack of formal networking for gynecological teaching associates. Those I was able to sample may have been similar along dimensions of race, class, and gender. In addition, my research was limited to the study of a small number of medical schools in the city of Chicago in 2011 and 2012.

IV. REASSEMBLING THE PELVIC EXAM

> "And this is a generation before me, but there were people there who remembered that [a faculty member] would go down to the public clinic, manually select a woman, say, 'You're going to come upstairs and teach the pelvic exam.' Not 'are you?' or 'will you?' 'You are.' He would completely cover the patient with drapes – including the head. [He would] go into the exam room and the students were probing down this anonymous vagina and roll her out. Then he'd give her money." (Dr. Thompson, medical faculty, Apr. 13, 2012) [6]
>
> *
>
> "I'm from the era […of when…] women were examined like flat on their back with a drape over their knees, and it was thought that […] neither of us will talk, or I'll ask you what you did on your last vacation because we're both kind of embarrassed, like this, so let's just pretend it's not happening. And women were also patronized, you know, pat them on the knee and say, 'Oh, don't worry about a thing, dear, I'll take care of you.' And so […] the rebellion and the women's movement, women were taught that, you know, tear that drape of their knees and sit up and say, 'Talk to me face to face!'" (Martha, professional director, Apr. 20, 2009)

In one generation, the way in which medical students learned to perform the pelvic examination was radically altered. Prior to this transformation, medical students learned how to do a pelvic examination for the first time on a clinic patient, as the first quote illustrates, who was given no opportunity to refuse. She was forced to become an "anonymous vagina" that medical student would "prob[e] down" in the presence of their instructor; she would literally become an object under the medical gaze.[7] Then came the movement that installed gynecological teaching associates in medical schools: women who sit up, talk back, and actively teach about their bodies to medical students, often without medical faculty present. And, importantly, she is a consenting, paid layperson, who offers her time, experience, and body to educate. In this chapter,

[6] I refer to everyone I interviewed by pseudonym.

[7] In Foucault's (1994) history of medical knowledge, he argues that the body has been transformed into a knowable object and disease into a constellation of signs and symptoms through the development of clinical practice. Foucault uses the term "medical gaze" to refer to the way in which biomedicine (and individual physicians) observe the body as an object of study: "the gaze that sees is the gaze that dominates" (1994): 39).

I ask: how was it that pelvic examinations went from being taught *on* "anonymous vagina[s]" to being taught *by* women who talked back, and all inside of one decade, the 1980s?

The story of the formation of the GTA program at UIC is a story of incidental convergence of several histories—the Women's Health Movement, medical educationists, and transformations in biomedicine—which altered one another's trajectories and changed how the pelvic exam is taught to medical students and, thus, the pelvic exam itself. First, faced with increasing scientization and a proliferation of medical specialties (Starr, 1982), a movement within medicine emerged, calling themselves medical educationists. An assortment of primary and clinical care providers, medical educationists turned their attention to the ways in which medical students were prepared in school to provide basic patient care. Second, the Women's Health Movement (Morgen, 2002; Kline, 2010) challenged the ways in which medical students were taught to conduct the pelvic exam for the first time. Third, shifts in the composition of medical students themselves (Lempp and Seale, 2004) and the changing nature of the doctor-patient relationship based on the rise of informed consent (Starr, 1982) altered the landscape of what was considered ethical practice.

To understand how the convergences of these histories altered the pelvic exam, I draw from several theoretical traditions. The central claim of this chapter is that the transformation of the pelvic exam that occurred at UIC during the 1980s was a result of power struggles within biomedicine, and between biomedicine and feminist activists. I draw first from Bourdieu's work on fields, which I reviewed in my literature review. I claim that biomedicine should be considered a field because it is a structured space with its own rules and its own forms of capital for which members compete (Bourdieu, 1993; Brosnan, 2010). In this chapter, I show how the field of medical education was transformed by struggles within biomedicine. The Women's

Health Movement can similarly be thought of as a field, or, following Klawiter (2008), a "field of contention," which is more loosely bounded and in which power is less concentrated. The struggles that shaped the field of medical education and the struggles between medical education and the Women's Health Movement shaped the ways in which the pelvic exam was and continues to be taught, and thus the exam itself. To capture these transformations in practice, I draw from literature on entanglements. Michelle Murphy (2012) argues that feminisms become entangled with biomedicine in complex and often contradictory ways, frequently at the intersections of tools, technologies, and practices. Entanglements are "attachments of material, technical, and social relations across divergent and even antagonistic terrains of politics" (Murphy, 2012: 12). As objects and practices move across these political terrains, they are reshaped, but do not completely lose the historical origins of their formations.[8] Murphy's conceptualization of "terrains of politics" is roughly analogous to fields, in that both are bounded by contestations of legitimate uses of power. I use the concept of entanglement to account for transformations in these attachments of material, discursive, and social relations between and within fields.

The pelvic exam is, for the female-bodied, perhaps one of the most important entry points into biomedicine. It is a routinized, commonplace technique of surveillance, which renders bodies into normalized targets of biomedical power. Scholars in feminist theory, medicine, public health, and elsewhere have noted that it is a fraught practice. Likewise, teaching the techniques of the pelvic exam also teaches medical students about female patients as biomedical

[8] Thus, it is possible, as Murphy does, to consider how a practice like menstrual extraction can herald both the self-responsible woman in charge of her reproduction found in feminist self-help and the neoliberal economics of population control in Bangladesh. Feminist politics about reproduction become attached and implicated in population control projects as the practices and tools used by both circulate back and forth, and both shape the these practices and tools.

subjects. Following feminist critics of biomedicine, I claim that how medical students learn the pelvic exam teaches them not only about the technique itself, but also about female bodies, patient subjectivities, and their own embodied and affective dispositions. In this chapter, I show first how the field of medical education was altered by crisis and transformation in biomedicine. I then discuss how it was that the pelvic exam became a target of the Women's Health Movement and how feminist projects about control and self-discovery became interlocked with concerns in biomedicine over standardization and the rationalization of work (Berg, 1997). I conclude with some remarks on the effects of these transformations and the ongoing shifts in how the pelvic exam is taught today.

Crisis and Transformation in Biomedicine: The Field of Medical Education

Many histories have been written about the Women's Health Movement (Morgen, 2002; Kline, 2010; Murphy, 2012). It was a diverse movement united by goals related to women's (in the undifferentiated, universalizing sense) health and reproduction. It was, at times, very antagonistic toward biomedicine. I follow Klawiter (2008) in thinking about the Women's health Movement as a field of contention. I will return later to the ways in which the Women's Health Movement transformed the pelvic exam, but first I'd like to focus on a history that has been less frequently told: that of a movement for reform within medical education. In this section, I show how crisis and transformation led to the field of medical education as we know it today.

In the period of the 1940s and 1950s following the World War II, a rapid expansion of medical knowledge and proliferation of medical specialties altered clinical practice (Starr, 1982; Kendall and Reader, 1988; Berg, 1997). This drive toward science-based medicine in the post-War period represents the increasing value of scientific capital in biomedicine. As these changes

altered the field of biomedicine, they produced changes in how medical students learned to doctor (Kendall and Reader, 1988). A small handful of physicians began to write about the inadequate ways they have been prepared to teach future physicians clinical practice and decision-making. In his account of developing some of the earliest inquiries into medical education, Dr. George E. Miller argues, "[d]espite a genuine interest in helping students to become physicians, it is a tradition among faculty members to assume that a sound personal base in biomedical science and clinical medicine is adequate for that work" (1980:1). This legacy of apprenticeship (the 'traditional' approach to training the new generation of doctors) can be thought of the *doxa* of biomedicine at this time, or the taken for-granted assumptions of the field, what Bourdieu calls "the naturalization of its own arbitrariness" (1977: 164).

At one medical school in particular, the assumptions underpinning this traditional view of how things should be done came under attack by a collection of physicians who weren't benefited by the drive toward science in biomedicine. The first systematic evaluation of the way in which medical educators are prepared to teach students occurred during the 1950s at the University of Buffalo. This project emerged out of conversations between Dr. George E. Miller and Dr. Robert Fisk (Abrahamson, 1960; Miller, 1980).

> "Coming from the world of medicine, where a physician seeks the aid of a specialist in those situations in which he feels such assistance is necessary, what could be more logical, Dr. Miller asked, than to consult with specialists in education when problems in instruction and evaluation arise?" (Abrahamson, 1960: 38).

The Commonwealth Fund provided funds for a series of seminars over three years to introduce faculty of the University of Buffalo to a variety of educational techniques (Miller, 1980). This Project in Medical Education ultimately failed, in part due to relocation of its driving members. However, the report the participants produced ultimately became the book *Teaching and Learning in Medical School*, published in 1961 (Miller, 1980). This reexamination of the process

of teaching medical students was not uncontroversial, which I take as evidence that the medical educationist movement was attacking biomedical *doxa* about training new doctors. *The Journal of the American Medical Association* called it a "direct attack on insularly held cherished beliefs and practices rampant in our medical schools" (quoted in Miller, 1980: 77).

While the Project failed, the spark it created ignited elsewhere. By 1959, three medical schools had official departments dedicated to the exploration of research in medical education. These were Dr. T. Hale Ham at Western Reserve (now Case Western Reserve University), Dr. George Miller at the University of Illinois, and Dr. Edwin Rosinski at the Medical College of Virginia (Rosinski, 1988). These three physicians began meeting regularly through the 1960s as debates over how medical students should learn clinical medicine intensified. Debates began to appear to medical journals regarding how best students should learn the physical examination in an era of increasing technological sophistication. In a piece in *The Journal of the American Medical Association*, one physician suggested that medical education using "programmed instruction" should follow the principles of engineering: "the art of applying scientific knowledge to tasks of living" (Ross, 1962: 140). What is meant by programmed instruction is that students need accurate, immediate feedback from trained educators in order to understand the clinical exam (Ross, 1962). Other physicians shared this lament:

> "One of the unexpected and distrusting results of the development of increasingly precise and useful diagnostic measures in the laboratory and x-ray departments is a significant and often alarming decrease in emphasis on the training of the medical student to perform with excellence the average comprehensive physical examination" (Seegal and Wertheim, 1962: 476).

It is in this decade of declining focus on direct patient care and increasing focus on technology that educationists entered. I suggest that it is likely that the broader changes that were occurring in biomedicine in relationship to a proliferation of diagnostic technologies and medical

subspecialties (Berg, 1997) left basic clinical care providers behind. Scientific capital was becoming increasingly more valuable for prestige and funding. To reestablish their significance in this changing terrain of power within biomedicine, general practice physicians emphasized the importance of the skill set that they had to offer medical students. While not rejecting the importance of scientific capital, they were laying the groundwork for establishing a form of capital based on education.

Likely medical educationists were interested in a share of research funds that were available to other subspecialties, but the history on how and why these grants became available is unclear. Between 1965 and 1967, three separate federal acts provided funding to those studying medical education (Rosinski, 1988). The Office of Research in Medical Education at the University of Illinois won a grant in 1966 to pilot a one-year fellowship to train physicians in medical education (Miller, 1980). Other programs soon emerged, so that by the mid-1960s, there were seven offices of research in medical education nationally (Rosinski, 1988).

Despite initial success, some available funding, and a circulating discourse of crisis in the medical community about education, the progress of the educationists' movement was slow. By 1977, there were seventy-two such departments in medical schools across the country (Miller, 1980). While this did not represent a numerical proliferation or a substantial domination in ideology, the trend was not insignificant. In his account of this historical period, Dr. George Miller unintentionally evokes Bourdieu by drawing on battlefield imagery to describe the situation. While there were only a handful of combatants on the field, the fighting was intense (Miller, 1980). Educationists were criticized for using alienating and harsh language, and for demanding reforms that were unpalatable to the status quo (Miller, 1980). These 'combatants' were struggling within the broader field of biomedicine for important forms of social and

economic capital. A questionnaire of departments of medical education showed that funding and recognition were the biggest challenges educationists faced (Miller, 1980). This struggle between medical educationists and the more 'traditional' approach to medical education for social and economic capital can be thought as a struggle to control who gets to define what counts as the best way to train the next generation of doctors and, by training them, inculcate values and ideologies that will uphold that group's position.[9]

At the beginning of the decade in question in this chapter, the medical educationist movement was floundering. Miller's history concluded in 1980 with a sense of frustration with reliance on old modes of thinking about medical education. Other scholars made note of the changes in biomedicine without apparent alterations to basic philosophies about how best to train the next generation of doctors. One called it a "history of reform without change" (Bloom, 1988), while others noted that some modifications did occur to attitudes and values among medical students (Kendall and Reader, 1988). Miller himself argues that "[b]ehavior is more likely to be influenced by what is emotionally valued than by what is rationally conceded," that the movement has gone as far as it can on "purely intellectual discourse," and that research is not enough "toward incorporating the science of learning into the art of teaching" (1980: 221). Miller ends his account with a powerful call to educationists to adapt to the demands of the larger biomedical institution. In a sense, Miller is giving up on the struggle to define educational capital as important and ceding to the power of scientific capital.

[9] It is possible to think of medical educationists as "heterodoxy" and the traditional approach as "orthodoxy": "The dominated classes have an interest in pushing back the limits of *doxa* and exposing the arbitrariness of the taken for granted; the dominant classes have an interest in defending the integrity of *doxa* or, short of this, of establishing in its place the necessarily imperfect substitute" (Bourdieu, 1977: 169). I am thinking here of the basic clinical care providers as "dominated classes" because their position within biomedicine was jeopardized by the rise of science and the proliferation of more prestigious technical specialties.

However, the 1980s saw an expansion of research in medical education and the solidification the field of medical education. In 1987, the Society for Directors of Research in Medical Education was established, formalizing the informal work of those physicians like Ham, Rosinski, and Miller (Rosinski, 1988). Departments of medical education have since become a ubiquitous part of medical schools to address "increased public expectations relating to healthcare, societal trends towards increased accountability, educational developments, increased interest in what to teach and how to educate doctors and the need to train more doctors" (Davis, Karunathilake, Harden, 2005: 665). Here, I claim that the medical educationist movement found a stronger foothold in biomedicine because of its collusion with the demands of the Women's Health Movement and because of the rapid changes within biomedicine that occurred during the 1980s, including the shifting composition of medical students, the altered terrain of biomedical ethics, the pressures of rationalization, and the increased emphasis on scientific means of knowing in medical practice. This second wave of crises at the end of the 1970s and 1980s opened up biomedicine to a more thorough interrogation of the reproduction of itself in the next generation of doctors as it faced all of these challenges that undermined it. These shifts within and without biomedicine became entangled with medical educationist reforms and with the Women's Health Movement in the practices of teaching the pelvic exam, and thus altered the trajectory of each. In the next section, I show the challenges that the Women's Health Movement posed to medical education and how medical educationists were able to gain scientific capital and thus leverage it for other forms of capital.

Politicizing the Pelvic Exam

Prior to the gynecological teaching associate model, medical students first learned how to perform a pelvic examination on clinic patients (sometimes under anesthesia), plastic models, prostitutes, or cadavers (Kretzschmar, 1978; Kapsalis, 1997). As the quote I opened this chapter with demonstrates, using passive clinic patients to teach medical students was often the practice. Medical school faculty became critical of these models of teaching for three main reasons: (1) they were exploitative of the patients involved; (2) students were extremely anxious and unable to communicate freely with the instructor because of the patient's presence; (3) and the patient was not able to provide detailed feedback to the student as to whether the proper organs had been palpated (Kretzchmar, 1978). Beginning in the 1960s, medical educators began experimenting with the use of laypeople to assess students' examination skills as feminist criticisms mounted outside biomedicine.

Activists in the Women's Health Movement criticized how medical students were learning the pelvic exam because these initial encounters provided the groundwork for how they would later treat women (Weiss, 1978). They argued that the way the pelvic exam was taught was dehumanizing and objectifying for women (Kapsalis, 1997; Kline, 2010). A medical student who learned the examination on a passive woman was implicitly taught that women lack agency, and that it was permissible to make them vulnerable and uncomfortable (Weiss, 1978). The use of clinic patients taught medical students that especially poor women of color deserved less respect than other women, and the use of prostitutes taught students that women were sexual objects for their use (Norsigian, 1975-1976). As a result, feminists demanded that physicians learn "to treat her [women patients] as a human being and not as an object" (Norsigian, 1975-1976: 6).

In her history of the Women's Health Movement, Murphy argues that participants engaged in what she calls protocol feminism: "a kind of feminism that posited its politics in the technical details of practices" (2012: 178). Protocol feminism is concerned with the biopolitics of the techniques, practices, and tools of biomedicine and technoscience that dealt with reproduction. Put another way, protocol feminism takes as its issue of contestation the ways in which biopolitical power is exercised at the technical level. The protocol feminism of the self-help movement, for example, attempted to intervene in the practices of the clinic, such as the terms people used to address one another, clothing, the clinical setting (such as the design of tables and tools), and the distribution of tasks. Murphy argues that protocol feminism engaged in making claims and contestations that defined some domains of practice and experience as political. Thus, the Women's Health Movement, embodied in feminist self-help, challenged the practices of power present in the pelvic exam while also declaring that the pelvic exam itself was an issue for political action. I claim that the Women's Health Movement politicized the instruction of the pelvic exam to medical students through their announcements and actions marking it as an issue of biopolitical concern. Concern about what else, epistemologically, medical students learn when they learn to perform the pelvic examination on a passive, indigent clinic patient marks these educational practices as political. Specific interest in power dynamics between physicians and women, and the messages that medical students receive about such dynamics, are questions of biopolitics. By politicizing the pelvic exam, the activists of the Women's Health Movement challenged established biomedical ideologies and values.[10]

The Boston Women's Health Collective, which was a feminist self-help group of the kind Murphy (2012) studied, was one of the most prominent examples of how the practices of

[10] They also challenge biomedicine's bottom line. As Thomas and Zimmerman (2007) have shown, the growth of feminist self-help clinics took money away from doctors when a critical mass of women began to use them instead.

teaching the pelvic exam became politicized. In 1975, feminist activists embarked on a radical new way of teaching medical students the pelvic examination, in coalition with Harvard Medical School (Kline, 2010). The first collaboration between the feminist activists of the Boston Women's Health Collective and the medical educators at Harvard involved women serving as pelvic models while a physician taught the students (Bell, 1979; Kline, 2010). While this was satisfactory to the physicians, the feminists felt that they were being exploited (Bell, 1979). In response, the feminists of the Boston Women's Health Collective formed the Pelvic Teaching Program (PTP), which recruited community members to learn and teach the pelvic exam (Bell, 1979; Kline, 2010). In this revision, two women paired up to teach the examination while the physician remained a silent observer (Bell, 1979). This was a more agreeable model to the feminist activists, but an article about this teaching protocol that was published in a radical journal generated controversy (PTP, 1976; Bell, 1979). The feminist community became divided regarding the radical potential of these programs. On one hand, feminists saw them as an empowering way to have women teach medical students, which would ultimately challenge the docility of the exam (Kline, 2010). Conversely, other activists saw how easily these programs could be coopted by biomedicine and lose their radical potential (PTP, 1976). As a result, the collective strongly encouraged other feminists groups not to participate in similar programs (PTP, 1976).

The Boston Women's Health Collective developed a third protocol in order to address concerns over cooptation and depoliticization (Bell, 1979; Kline, 2010). This new protocol included several important changes that addressed "hierarchy, sexism, fragmentation of learning skills, profit, and division between provider and consumer" (Bell, 1979: 12). The changes included: (1) including women only in order to question why men should provide women's

healthcare, (2) include other hospital personnel to challenge physicians' dominance, (3) continue the sessions over three or four separate occasions to foster critical discussion, and (4) increase the cost from $25-$50 per session to $750 for all four sessions (Bell, 1979). Even though the group was approached by multiple medical schools, the protocol ultimately was not adopted by any (Bell, 1979; Kline, 2010).

> "As long as the PTP fell within the acceptable range of innovations, exemplified by the 'Simulated Patient' programs, it remained an acceptable program. When it confronted basic power relations and current assumptions about the goals of medical education, the PTP became unacceptable to current teaching programs" (Bell, 1979: 12).

Thus, feminists were able to bring their political practices into the medical school so long as they followed the rules of the game. When they attempted to challenge basic tenets of biomedical power, however, they were unsuccessful. Feminists blamed the failure of their new protocol on the rigidity of biomedicine while also identifying a key history that would, in other medical schools, be the link between feminist projects and biomedicine: that of simulation.

The use of simulation in medical education has a long history, dating back to at least the mid-sixteenth century in Europe when midwives practiced their delivery skills on a basket-work frame covered in oilskin (Buck, 1990). During the 1960s, physicians began experimenting with the use of real, live people to simulate clinical encounters (Barrows and Abrahamson, 1964; Wallace, 1997). Using simulated patients allows medical students to come "as close to the truth of an authentic clinical encounter as [they] could get without actually being there" (Wallace, 1997: 6). This coincides with the shifting ethical terrain that was occurring in biomedicine through the 1960s and 1970s: "the student can experience and practice clinical medicine without jeopardizing the health or welfare of real, sick patients" (Wallace, 1997: 6). I claim that the rise of simulation both enabled feminist practices to enter into biomedicine and provided medical educationists with the scientific capital that they needed to establish the field of medical

education. As a scientific practice, it appeals to protocol feminism's concerns over practices, and it enhances the scientific profile of medical educationists.

At the University of Iowa, Robert Kretzchmar and his colleagues began experimenting with different models of teaching clinical pelvic examination skills in the 1960s and 1970s (1978). Kretzchmar disliked plastic models because they "lack authenticity […] compared to the student's first encounter with a live patient" and felt that the "patient was exploited by the teaching system, as student examinations […] do not contribute to patient care" (1978: 367). The traditional method of teaching also didn't emphasize any of the interpersonal skills of the exam. Instead, Kretzchmar and his colleagues taught students to perform the examination using a paid volunteer. The first gynecological teaching associate was a nurse who remained draped to protect her privacy and provided minimal feedback (Kretzchmar, 1978). By the 1970s, Kretzchmar was inspired by work with simulated patients and started a pilot program to recruit women to simultaneously teach the examination and be pelvic models (Wallace, 1997).

Kretzchmar attributed the success of his program to the type of woman he hired to work (1978). His group of gynecological teaching associates was six young women recruited from his university who were all involved in some fashion with the Women's Health Movement. Kretzchmar described the activist orientation of his gynecological teaching associates as important to the work: "learning what it is to be a woman, exploring her own anatomy and physiology, and coming to terms with her sexuality, her attitudes, and her role in life" (1978: 369). Because of this, these women were more comfortable with teaching and talking about the exam. In addition, Kretzchmar's gynecological teaching associates added "sensitivity and humanism" (1978: 369) to the encounter. The women in Kretzchmar's early model may have experienced some conflicts, as the activists in the Boston Women's Health Center did.

> "Rather than applying their skills elsewhere, whether it be through free medical clinics of women's health centers, the [gynecological teaching associates] prefer to work within the existing system" (Kretzchmar, 1978: 368).

While it is not possible to know the motivations of the women in Kretzchmar's program, it is possible to surmise that, like the women in the Boston Women's Health Collective, they drew from the Women's Health Movement and its politicization of the pelvic exam. Kretzchmar seems to suggest, by emphasizing the importance of these women's involvement in the Women's Health Movement, that their politicization of the pelvic exam makes them amenable to reshaping the practice of the pelvic exam within the existing biomedical establishment. Unlike the Pelvic Teaching Program and the later program at UIC, however, the protocol—meaning, the how-to of doing the pelvic exam—was developed entirely by Kretzchmar and other medical educators. Feminists participated in teaching, but they did not participate in reshaping how the pelvic exam would actually be done.

Thus, feminists were able to politicize the pelvic exam during the 1970s, but they were unable to sufficiently challenge the core tenets of biomedicine. Their concerns about how medical students learned the pelvic exam became entangled with medical educationists' concerns as the practice of the pelvic passed out into the Women's Health Movement and back into biomedicine. The mechanism of this entanglement was simulation, which offered medical educationists the scientific capital they needed. Next, I'd like to consider a case that demonstrates what I call reassembling the pelvic exam: collusions between feminists and medical educationists that altered the practice of the pelvic exam by developing new protocols for teaching it.

Reassembling the Pelvic Exam

I consider the pelvic exam as an assemblage, following the insights of scholars working in a Deleuzian tradition on how heterogeneous, transportable varieties of objects and signs are assembled together in practice (Deleuze and Guattari, 1987; Thompson, 2005; Murphy, 2012; Prentice, 2012). Deleuze and Guattari (1987) describe assemblages as being semiotic, material, and social, and identifiable by their rhizomatic connection. What makes the concept of the assemblage useful is that it describes both the "hanging together" of diverse, multilayered elements, as well as the opposite: the continual "lines of flight" or pulling apart of these elements. I consider the pelvic exam as an assemblage in order to account for biomedical discourse, the materiality of bodies and tools, the social relations within the encounter, and so forth, all coexisting within this fraught practice. Understanding the simultaneous hanging together and instability of the elements of an assemblage also helps me to account for the ways in which the pelvic exam could be reorganized during the course of the 1980s, as the GTA program was more fully developed. I claim that the pelvic exam was reassembled during the 1980s by feminists acting in concert with medical educationists through the development of the GTA program at the University of Illinois at Chicago School of Medicine. The logics guiding how to do a pelvic exam, as exemplified by what was standardized to teach to medical students, emerged from a number of key histories, including the medical educationist movement, feminist self-help practices in the Women's Health Movement, the shifting composition of medical student demographics, the altered ethical terrain of clinical practice, the uneven and often gendered power relationships between doctors and patients, and the scientization and rationalization of biomedicine. The process of reshaping how medical students learn the pelvic

exam reassembled bodies, affects, subjectivities, interactions between practitioner and patient, disciplinary practices, and professional social behaviors.

The University of Illinois at Chicago School of Medicine is unique, as I discussed above, because of its long involvement in the educationist movement. It's unclear why UIC of all medical schools was open to the medical educationist movement, but I suspect it has something to do with the constitution of the medical school. At the time that the gynecological teaching associate program was started, the Office of Research in Medical Education (now the Department of Medical Education) was one of the three oldest such programs in existence. According to my interviews with faculty in the Department of Medical Education and documentation from the Society for Directors of Research in Medical Education, there was a great deal of funding available to innovators in medical education at this time. This means that medical educationists at UIC had more economic capital to draw from, but they also had strong social capital. The Office/Department was—and continues to be—comprised of both more "traditional" medical faculty and those from the humanities and social sciences. In addition, the University of Illinois at Chicago is itself a public research institution, with a number of programs as well for ancillary health professions, as well as a full teaching hospital.

The first incarnation of the GTA program at UIC came when a group of medical students approached the Emma Goldman Health Center to prepare a workshop for them on learning the pelvic exam. The Emma Goldman Health Center was, at the time, one of the major feminist self-help clinics of the kind Murphy (2012) described. This occurred at the very beginning on the 1980s. The changing composition of the medical student body was an important force that shaped the field of medical education and led to the establishment of the GTA program. This was at a time when large numbers of women were entering medical schools: according to the

American Association of Medical Colleges, women made up 9.6% of medical students in 1970, 20.5% in 1976, 26.5% in 1981, and 32.5% in 1985. Such a major demographic shift created instability in the field of medical education, as women began to question the "boys in white" culture of biomedicine. It's significant that medical students themselves—rather than medical educationists—first demanded a change in how the pelvic exam was taught. According to my interviews, the impetus for the programs at two of the three medical schools I studied was a woman medical student. One member of this group described their motivation:

> "There was a […] limited national movement […] on the part of medical students in response to the Women's Healthcare Movement in general to train more sympathetic, knowledge, and sensitive healthcare providers. So it was really a feminist sensibility of trying to train more appropriate healthcare providers that led [us] to emulate what was happening at a couple of medical schools in the country […]" (Sally, medical student, Dec. 12, 2011)

According to my interview, the students had learned about these other schools through student meetings at the American Association of Medical Colleges (AAMC). A volunteer from the Emma Goldman Health Center came to the students and "talk[ed] to us about, you know, the impact of the exam and how to do it in a thoughtful [manner], and then she allowed us to perform an exam and gave us feedback" (Sally, medical student, Dec. 12, 2011). The funds for this program came from the students involved. The source material—the "how to" of the pelvic exam—came from the Emma Goldman Health Center and alternative feminist practices of the pelvic exam. It included more than just the actual mechanics of the exam: it included how to talk to a patient and appreciate the patient's perspective during the exam, which is an affective or emotional component that became very important to the later program and which I discuss in Chapter 5.

This first workshop was only for the students who organized it, but eventually the students approached the administration and asked to make their program part of the curriculum.

Sally was also pursuing a Master's in Public Health at the time and decided to compare students who had gone through the program to those who hadn't, to determine the program's impact on the health outcomes of their patients. According to Sally: "[T]hat's the data that we used actually to propose this curricular change to healthcare—to the medical school powers that be, was that it would produce more capable and competent clinicians". Sally was able to use this scientific capital, and the school ultimately accepted the proposal. Sally became the resident who supervised the program under the guidance of the physician in charge. She described students' initial reaction to the program as: "most medical students were incredibly supportive and happy to have it because it really reduced the anxiety of doing your first pelvic exam." As the Women's Health Movement became entangled with medical education, the practices of the pelvic exam were reshaped. As I will show later in this chapter, the feminist goal of making patients feel comfortable and empowered became entangled with the goal in medical education of reducing medical students' anxieties. Though this collusion was seemingly happenstance, it resulted in a massive transformation in the relationship between doctors and patients during the pelvic exam, and it transformed manual and technical practices in the pelvic exam.

Another important figure in the development of the program at UIC was Dr. Thompson, who embodies the interdisciplinary innovation behind the educationist movement. After a diverse educational career, Dr. Thompson chose a surgical specialty but quickly discovered that he preferred patient care: "I think that a key piece of medicine is hearing the patient and gaining the patient's trust. [For me, medicine is] not the money or prestige. It's about the joy of taking care of patients". One of Dr. Thompson's earliest driving concerns was the importance of taking a good clinical history from a patient in order to direct the physical exam. As a gynecologist, his focus became the pelvic exam.

> "It was a skill that if I watched people do it […] I discerned a tremendous difference in the way they did it and the kind of information they got back […] And it had to do with, one, how they did it physically, and two, how they communicated the level of trust the patient had, the patient being able to relax."

It is this observation that runs through the development of the program at UIC: the connection between style of practice and achieving the desired result. This observation also demonstrates another entanglement between the goal of making patients feel comfortable and empowered, as championed by the Women's Health Movement, and the goal in biomedicine of locating the truth of disease in the body through examination (Foucault, 1994). Cultivating an affective stance—by this I mean an embodied emotional disposition—toward the patient that would evoke trust, and thus relaxation, would allow a practicing physician better access to mechanisms and practices of finding pathology on the patient's body. I discuss this affective disposition further in Chapters 5 and 6.

The timeline of events is somewhat unclear here, but it seems that at some point, Dr. Thompson became aware of what the medical students were doing and its link to what others were doing with GTAs in medical education. He also had a colleague who was running a GTA program. This colleague introduced Dr. Thompson to the GTAs, and Dr. Thompson spent time talking with them to learn about their motivations, their working conditions, and the ways they taught the exam. Interestingly, he also asked them their perspectives of gynecologists. In our interviews, Dr. Thompson expressed an interest in finding out from the GTAs he worked with why women, in general, might dislike or distrust gynecologists so that his protocol for teaching the pelvic exam could correct the problems. Thus, he was not just reassembling the manual and communication techniques of the pelvic exam, he was reassembling the relationship between physician and patient. He wanted to make doctors into likeable and trustworthy service

providers. This goal implicitly links the field of medical education to the economic power of biomedicine: by "correcting the problems" that caused women to seek out alternatives like feminist self-help clinics, medical education could cement its dominance over women's healthcare.

Dr. Thompson took what he learned to UIC and began to set up his program out of the pieces that had already been established by the medical students. It's unclear how this process happened, but Sally claims that at some point Dr. Thompson took over the program and she ran it as a resident under his authority. When he first began to run the program, Dr. Thompson experienced a great deal of resistance from "the family doctors, some of the internists and others": "They were terrified there was going to be affairs, there was going to be sexual activity." Their concerns echo those that other faculty members had when GTA programs were first introduced into medical schools, that no "normal" woman would allow herself to be examined by strangers in this manner (Kapsalis, 1997). As I argued elsewhere (Underman, 2011), this is because the female body has been thoroughly saturated by and associated with sexuality. By bringing in so-called "normal" women to the medical school to work as GTAs, Dr. Thompson showed that a woman could voluntarily expose her genitals to a group of strangers without sexual activity taking place—as long as this occurred within an appropriate professional clinical setting. In doing so, Dr. Thompson and his program participants reassembled the role of sexuality in the exam. Instead of the thing to fear and avoid, sexuality became something to confront neutrally and set aside.

The chair of the Department of Obstetrics and Gynecology supported Dr. Thompson's program, though. Dr. Thompson continued the program, working with Sally and an expanding group of GTAs drawn from the medical students' original workshop and their peer networks.

Among the qualities Thompson looked for in potential GTAs were normal anatomy, comfort with one's own body, good communication skills, intelligence, and "emotional stability. The emphasis on normal anatomy and emotional stability is particularly interesting, as it demonstrates how biomedical understandings of the female body became part of the assemblage. The body of the GTA had to mirror what medical students would learn from the anatomical atlas constituted normal and healthy anatomy.

The initial protocol was developed out of conversations among Dr. Thompson and the GTAs: "Many, many, many hours sitting together talking about their experiences, frustrations, their experiences with friends and what they thought was wrong, what they thought was right." From these conversations came the initial protocol. Dr. Thompson was aware during these encounters of a gendered imbalance in the treatment of patients, especially in patient communication. He cites as an example what had been a common practice of calling the woman patient a pet name like "honey" or "sweetie":

> "It was taught in many places that was a way to help a woman relax. [*Mm-hmm*.] Well, it's just the opposite for most women. And it certainly is degrading. [… To] a man you wouldn't say, 'Honey, bend over. I want to stick my finger up your butt.'"

Dr. Thompson was motivated to address these commonplace practices that resulted in such derogatory experiences for women and gendered power imbalances. Again, I suggest here that, implicitly, addressing such practices that drove women away from traditional biomedicine reestablished its dominance.

This goal mapped on to those that feminists working in the Women's Health Movement also held.

> "I just felt like […] I really wanted to get into the eye of the storm, to train these motherfuckers, [laughs] on how to do this right and how to get the information that they needed from their patients so that they could formulate the proper care diagnosis" (Ruth**,** GTA, Mar. 8, 2009).

A few other GTAS who were working in the early to mid 1980s echoed a similar sentiment about their motivation for doing the work. Dr. Thompson also noted in writing about this program: "most would espouse the term 'feminist' as an accurate descriptive term" (Thompson, et al, 1988: 125). These women's comfort and experience allowed them, in Dr. Thompson's view, to be ideal teachers and work well with students. He ended up forming a group of diverse women with varying degrees of feminist motivation who were all interested in helping improve how physicians learned to treat women. He describes treating them as authorities of their own experiences. "They had a very strong sense of autonomy, which I actually, you know, am sincerely supportive [of]". The gynecological teaching associates were hired as contracted instructors, not simulated patients: "ordinary citizen with special knowledge and expertise" (Beckmann, et al, 1988: 128).

> "The [GTAs] are, in part, attracted to this ambiguous situation because they see it as a way of having positive influence on the training of doctors while not becoming incorporated within the medical education establishment which they may perceive as chauvinistic. The feminist orientation of the [GTA] is thereby preserved without constraints imposed by the academic organization." (Beckmann, et al, 1988: 128)

Thus, components of feminist activism become key pieces of the assemblage of the pelvic exam, specifically practices that addressed power imbalances based on gender. The emphasis on hiring GTAs as instructors rather than simulated patients was also important in the transformation of the doctor-patient relationship. Hiring laypeople as instructors to take such an active role teaching medical students signals a shift in the role of patient expertise in biomedicine. Physicians were no longer the only or exclusive experts.

The GTAs and Dr. Thompson then began working on how to teach these skills to the medical students. One aspect of this preparation was a great deal of practice involving the actual

manual skills of the exam, especially the speculum insertion, so that the GTAs could develop a stock of embodied experiential knowledge about what a proper exam felt like (Underman, 2011). "And so one of the things we practiced is the women doing the teaching knowing what it felt like to have the speculum not far enough in and far enough in." Throughout these practice sessions with GTAs, Dr. Thompson learned a great deal about the manual skills which ultimately went into his textbook on the exam.

> "And with the GTA – we learned a lot about how does it fit? Not just the obvious things, like warming the speculum, picking the right size speculum […] You learn that you need to be careful that you insert the speculum at the right angle […] It's not perpendicular to the floor, but it's tilted upward slightly." (Dr. Thompson, medical faculty, Apr. 13, 2012)

Similarly, Dr. Thompson learned to be mindful of the appropriate angles when performing the recto-vaginal exam, which involves inserting the middle finger into the rectum and the index finger into the vagina to examine the tissue between rectum and vagina. Rather than inserting the fingers straight on, he and the GTAs discovered that a horse-shoe shaped motion was more comfortable. Dr. Thompson and the GTAs learned about physical stance for performing the bimanual exam, which involves inserting two fingers into the vagina to examine the cervix, uterus, and ovaries. Standing too close or too far away makes the exam difficult and emotionally uncomfortable for the patient, while tucking the elbow at the side and extending through the wrist makes it more physically comfortable for the physician and gets better leverage. I discuss these techniques further in Chapter 6.

The GTAs were encouraged to adjust the speculum in the teaching encounter so that students would learn how to properly insert it. They learned to pair this instruction on exam skills with instruction on proper communication, all with the goal of reducing student anxiety to make the exam a better experience for women.

> "The teaching wasn't just the exam, but they were – need to talk with the students before the exam about things like this. They'd talk about how they were feeling and how they were talking with students who really try, and if you make a mistake don't worry about it. We're trained so well, we can't hurt – you can't hurt us." (Dr. Thompson, medical faculty, Apr. 13, 2012)

Thus, reassembling the exam wasn't only about developing manual or technical practice. It was also about acknowledging medical students' own emotional states and cultivating an affective stance in medical students toward their patients. Like sexuality, feelings that a medical student might have about the exam should not be ignored, but should be examined and set aside or cultivated as appropriate for professional practice.[11] Anxiety in particular had to be managed so that medical students could appear to be confident and composed for the patient's sake, no matter how they actually felt. I discuss this affective disposition further in Chapter 5.

The program demonstrated success. According to Dr. Thompson, "[t]he administration liked the way the students came out, liked the way they felt about themselves, what they perceived their skills to be and the feedback from internal medicine doing pelvic exam was they're better at it." However, debate still lingered about the program. Some faculty members expressed concerns to Dr. Thompson that paying women to receive pelvic exams was unethical and akin to prostitution. Dr. Thompson defended his GTAs as being skilled educators.

What is most interesting about how Dr. Thompson and the GTAs developed the protocol is that they did it through intentional reassembling of the practices of the pelvic exam. Working through the exam together, Dr. Thompson and the GTAs he worked with dismantled, interrogated, and refashioned multiple elements of the practice of the pelvic exam. GTAs practiced insertion techniques and the bimanual exam in order to learn how to teach it. In the

[11] This transformation is part of a broader transformation in what Gould (2009) would call the emotional habitus of biomedicine.

process, Dr. Thompson learned about more appropriate and more comfortable techniques, which he incorporated into the protocol. Thus, *the manual and technical technique* of the pelvic exam was reassembled through the development of the GTA program. Dr. Thompson and the GTAs he worked with also focused on language and communication during the exam, removing words and phrases that were sexist, demeaning, or offensive to patients. They incorporated language that was considered to be more neutral, as well as phrases and explanations that would inform the patient about the various parts of the exam that were being performed. In this way, not only was the *language of the pelvic exam* reassembled, by the *relationship between physician and patient* was reassembled. The powerless docility of the patient was replaced with more (and what was considered more appropriate) information. The self-aware, self-responsible subject-figure of the Women's Health Movement (Murphy, 2012) was reassembled into the pelvic exam as the type of patient that medical students were learning to train their patients to become. Finally, by focusing on the feelings of the medical students and by talking about how sensitive and sexually-charged this exam can be, Dr. Thompson and the GTAs he worked with were attempting to change medical students' own perceptions and attitudes toward learning the pelvic exam. Dr. Thompson and the GTAs sought to craft medical students who were aware of and felt safe acknowledging their embarrassment, discomfort, and fear of failure or hurting the patient. The *affective stance of the medical student* was reassembled. All of this has consequences for the habitus that medical students inculcate, as I discuss in Chapters 5 and 6.

What is a "Good" Pelvic Exam?: The Development of a Standardized Protocol

The initial GTA program at the University of Illinois at Chicago School of Medicine reassembled the pelvic exam, as I have discussed above, through an intentional refashioning of

the technique and affective stance used to practice the pelvic exam as taught to medical students. These refashionings drew from a number of histories, including the Women's Health Movement, medical educationists, and other transformations within biomedicine. As I discuss in this section, this entanglement of feminism and biomedicine became more complicated as the field of medical education was shaped by standardizing and institutionalizing forces emergent in biomedicine. This led to debate among the original, feminist-motivated members of the GTA program about the political role of the program.

As the GTA program at UIC developed, two faculty members in the Office of Research in Medical Education were brought in to evaluate the programs. Their involvement came as the program had become somewhat established and attention shifted toward standardizing the curriculum. One of the faculty members had done work on a checklist for teaching medical students communication skills with patients. She adapted this checklist for the GTA program. "[Part of the checklist was] how you introduce yourself to the patient, how you approach the patient with comfort and modesty and all those things" (Dr. Nichols, faculty member, June 20, 2012). The medical students who went through the program were evaluated using this checklist. The GTAs were also given the checklist in order to adapt their teaching styles to it. The goal of standardizing the curriculum was twofold: it made certain that medical students were being taught *and* evaluated consistently.

> "[H]aving a standardized checklist [is important] so that you could get some consistency […] the ability to say, okay, this is what we all agree on as a good exam […] here is what the steps should look like […and…] so that when their students are evaluated, they're all evaluated according to the same criteria." (Dr. Nichols, faculty member, June 20, 2012).

Thus, developing a standardized protocol that could be consistently taught to all medical students *and* used to evaluate them meant a certain amount of durability and concretizing of what

officially counts as a good pelvic exam through the GTA session. This brought feminist politicization into biomedical practice as a matter of best practices in medical education. Many of the tenets of feminist practice became cornerstones of the checklist: respecting the patient's bodily autonomy, actively involving the patient in the examination, and using language that was not derogatory or distancing. This feminist history remains a fundamental part of GTA programs in Chicago today. My interviews with current and former GTAs reveal that the curriculum has remained largely unchanged since the late 1980s or early 1990s when the checklist was adopted.

The standardization of the "good" pelvic exam in the GTA session mapped onto national-level transformations in biomedicine, which was a boon for the field of medical education. Checklists and standardization aligned with the increasingly science-oriented nature of biomedicine. Dr. Thompson and his colleagues gathered data on medical student performance and anxiety before and after the GTA session, and they published several articles about the UIC program in medical journals. Their research added to a growing body of literature on GTA programs, as these types of programs gained widespread acceptance in the medical education. In 1983, seventy-five medical schools used GTA programs (Guenther, Laube, and Matthes, 1983). By 1990, seventy percent of medical schools used them (Glazer, 1992) and by 1992, ninety percent of medical schools in the United States and Canada used them (Beckmann, et al, 1992). Through the circulation of these publications in medical journals and at national meetings, the curriculum at the University of Illinois at Chicago School of Medicine mapped onto and developed in common with these other programs.[12]

[12] At UIC, the increased role of the Department of Medical Education meant the growth of simulation technologies. In 1987, UIC developed its Clinical Performance Center under the Department of Medical Education and the leadership of Dr. Reed Williams. The University of Illinois School of Medicine continued to expand and develop the Clinical Performance Center throughout the late 1980s and early 1990s. The CPC received multiple grants and contracts to serve as a test site for various new programs, such as the use of standardized patients under the National Board of Medical Examiners (Annual Report, 1990-1991).

I'd like to suggest as well that this rapid of expansion of GTA and other types of simulation programs represents how medical educationists gained legitimacy in mainstream biomedicine. Medical educationists were able to leverage their scientific capital in order to secure economic and social capital—and, ultimately, concretize the field of medical education by monopolizing the power to define best practices for teaching medical students and thus reproducing the field. The work of medical educationists mapped onto larger goals in biomedicine related to scientization and rationalization of medical work (Berg, 1997; Prentice, 2012). More and more aspects of medical education shifted toward the use of simulated patients and technological simulation, as budgetary and time constraints multiplied, brought on in part by the growing number of science-based courses required in medical schools (Prentice, 2012). This shift was a boon for medical educationists, whose work on best practices in medical education through research was intensified during this time of increased scientization in medicine. Applying scientific principles to rationalize and improve medical education had long been championed by the medical educationist movement, and through mapping onto this broader shift in biomedicine, medical educationists could access more funding and more institutional recognition for their work. It was in 1987 that the Society of Directors of Research in Medical Education was officially founded out of the AAMC Group on Medical Education (Rosinski, 1988). This represents an important moment when a critical mass of medical schools was developing programs to research medical education.

However, standardizing the protocol was only one piece of standardizing the GTA session. As the GTA program became institutionalized into the medical school, "there was a real push to, you know, make the whole thing more professional, to bring it up to a certain level" (Donna, Nov. 19, 2011). The GTAs working at the time were used to a more relaxed style of

practice that was common in feminist self-help circles. Tardiness and flexibility of work schedules, as well as wearing casual clothing, had been typical for the GTAs. Then the coordinator insisted that GTAs show up to work on time and begin to dress more professionally. She also began to more heavily emphasize offering constructive criticism to students and adhering to the standardized curriculum that had been developed, rather than going "off script" by talking about whatever the GTA felt was important. This incorporation of standardization and norms of professionalism valued in biomedicine created a great deal of political tension in the program because it shifted the emphasis away from challenging power relations.

Around this time, this coordinator left and was replaced by another coordinator who was even more insistent on adhering to these changes. In addition, she disallowed GTAs from teaching while menstruating. The coordinator, whom I interviewed, felt that medical students were already nervous enough and confronting a menstruating female body would make the encounter too anxiety-provoking, thus inhibiting their ability to learn. The prohibition on teaching while menstruating was a politically-charged issue for some of the GTAs at the time. As I discussed above, they had politicized the pelvic exam by announcing it as a manner of biopolitical concern and, in a similar fashion, they politicized teaching while menstruating. For these GTAs, menstruation was a normal, healthy, natural function of the female body, and teaching while menstruating was important in order to teach medical students to approach a menstruating body as a normal, healthy one. Most GTAs preferred not to teach while menstruating regardless, as it could be messy and uncomfortable for them.[13] However, being prohibited from teaching while menstruating made it, for some GTAs, an issue of political

[13] Most guidelines also suggest that Pap smears not be collected while the patient is menstruating, as the endometrial cells may interfere with the results. This means that in actuality, most physicians will not be performing a "well woman" exam on a menstruating woman.

concern, as it removed the choice from the individual GTA and made it a policy of the GTA program.

According to a GTA at this time, "it went from there being a coordinator who felt like she was coming at it partly from an activist position to a coordinator who was much more about […] we're tools of the institution and we need to do everything exactly how they say and that's how it needs to be done" (Jaclyn, GTA, Nov. 28, 2011). This led to a crisis within the GTA working group about the politics of the program. According to one of the GTAs involved in the early program, the GTAs who had initially come to the program through the Emma Goldman Health Center and had worked with the original group of medical students were critical of Dr. Thompson's program.

> "They wanted to own the program. […] They were invited in by the medical students, but it quickly—it became so successful. […] So the Emma Goldman people decided that—they went after [Thompson]. […S]ome of them didn't like him and they thought that he was, you know, anti-feminist or something weird like that. […T]hey tried to like get everybody to go on strike and not go to work. And the thing was that it paid so well that the women—most of the women that were doing it were doing it for the pay and not for a political purpose anymore." (Donna, GTA and professional director, Nov. 19, 2011)

According to Donna, this attempted reassertion of power ultimately back-fired, and the GTAs who had supported it chose to leave the program.[14] The timeline of events here is somewhat uncertain. The medical student, Sally, who initially demanded the program and then managed it as a resident was by this point working under Dr. Thompson, who she claims took over and took all the credit. She and the other medical students who started the workshops weren't invited to be part of the research and publications. It seems, then, that some of the conflict was about Dr. Thompson and his colleagues in the Department of Medical Education "owning" the program

[14] This depoliticization is something both Susan Bell and Wendy Kline have demonstrated. GTA programs more closely aligned with standardized patient programs were less political.

and Dr. Thompson becoming the face of it in the biomedical community. So it seems that what caused a reevaluation among the GTAs of the politics of the program was an issue of control over the program and the GTAs.

Here, I'd like to suggest the important role of power. Not all bodies and subjectivities involved in this assemblage are equal within the broader terrains of power in which they coexist. The networks of producing scientific knowledge through publishing, institutional support, and recognition produced an uneven terrain of power in the GTA program. As the GTA program incorporated elements of standardization and professionalism, the GTAs lost some of their authority, and their vulnerability as the bodies used in teaching became more pronounced.

While many GTAs nationwide continue to actively maintain a feminist orientation to their work (Underman, 2011), some of the Chicago-area GTAs I spoke with who have been working since the 1980s expressed, either formally or informally to me in various ways, some frustration with a loss of politics as the explicit focus of the program. Emphasizing the history of the doctor-patient relationship and training medical students to respect their female patients has been deemphasized in favor of making the encounter more about reducing the anxiety of medical students. I would argue that this shift in related broader changes in biomedical culture.

> Vivian**:** "**[**A]s it's [the GTA program] evolved, I think less and less of […the…] feminist movement of, you know, address me as an equal. It's not about that. It's about the anatomy. It's not about being respected as a female. I think that's a forgone conclusion at this point […]"
> Kelly: "So would you say then kind of like in general that the medical community has kind of evolved and now respects females as people, and so that isn't—doesn't need to be part of the program anymore?"
> Vivian**:** "[…] I think teaching them to respect women versus them being an object, I don't think that's part of it anymore. […] I don't see that as an issue anymore." (GTA, Sept. 9, 2009)
>
> *
>
> "Medical student started having groups where they actually talked about how they felt about cutting up dead bodies and […] things changed, sort of like the women's movement, you know. We no longer have to fight so hard, I think, and some things are

> just accepted and taken for-granted and part of this society. And so then it became more about just how to make it a more comfortable experience and for the women you're examining. And then the mechanics of it." (Martha, professional director, Apr. 20, 2009)

Many of the elements of this convergence that led to the GTA program during the 1980s have also shifted through the 1990s and 2000s. The Women's Health Movement in the US waned. The composition of medical students has become more equal. According to the AAMC, by 1993, women made up 40% of medical students, and by 2005, 48.5%. During the 1990s, a number of courses and working groups were developed to address medical students' emotions in relationship to doing physical exams. Consumerist pressures in biomedicine and the emphasis on including the patient's perspective in clinical practice led to a radical transformation in biomedicine itself (Clarke, et al, 2003) and in professional practices (Laine and Davidoff, 1996). The culture around informed consent and patients' rights shifted with the emergence of what Clarke et al (2003) call biomedicalization: patients are more informed and active in general, and physicians are more mindful of the patient experience for a number of reasons. One such reason was the emergence of patient-centered medicine in the 1990s, which countered some of the rationalizing effects of the scientization of biomedical practice (Laine and Davidoff, 1996). All of this suggests to me a broader change in the field of biomedicine, which has had a direct impact on GTA programs and the ways in which the pelvic exam is assembled.

Thus, I argue that the pelvic exam was further reassembled as elements of standardization were incorporated, which created a moment of crisis over the politicization of the pelvic exam. Many changes in biomedical culture, medical school practices, and in broader terrains of power meant that the practices within the GTA session also changed. And yet, I argue that the pelvic exam is, crucially, a reassemblage. The elements of communication, bodily autonomy, and patient involvement that arose from the Women's Health Movement remain, as does that use of

compensated laypeople from simulated patients. The concern with teaching basic clinical skills remains from medical educationists' involvement, and these elements remain firmly entangled with the standardizing and rationalizing shifts that occurred in biomedicine in the 1980s and 1990s.

Conclusion: The Responsibilized Patient

The current GTA program at the University of Illinois at Chicago has become further entangled with another important shift in biomedicine that has occurred in the 1990s and 2000s, and which links up with projects begun in the Women's Health Movement. Murphy (2012) argues that the self-help practices of the Women's Health Movement favored a self-governing subject-figure, who could make herself available to biomedicine and take control (and thus responsibility) of her own body by appropriating biomedical tools. She links this to a shift in what she calls the moral economy of the patient: through informed consent and the ethics of the feminist movement during the 1960s and 1970s, the good patient was no longer one who passively obeyed, but one who made active choices.

> "Rather than simply compliant and obedient, the good patient, over the course of the late twentieth century, became someone who was educated enough to ensure doctors had negotiated 'informed consent,' and who could be her or his own advocate, as well as someone who regulated her or his own risk and 'lifestyle' for the sake of good health" (Murphy, 2012: 118).

Thus, what counted as a good patient was someone who was responsiblized: self-governing, informed, active, and available to biomedicine. The Women's Health Movement reinforced this subject-figure, Murphy argues, by emphasizing self-surveillance, active engagement with doctors as part of an effort to reshape the doctor-patient relationship, and a willingness to take into one's own hands the tools of biomedicine. This subject-figure links up to those produced and valued in

circulations of discourse about patient-centered medicine starting in the 1990s and the new biopolitics of the 1990s and 2000s described by Rose (2007). According to Rose, "activism and responsibility have now become not only desirable but virtually obligatory" (2007: 147). Under biomedicalization and the reorganization of state powers and the private sector, there has been a shift in the burden of biopower toward individual self-surveillance.

This shift toward responsibilizing the patient is apparent in the GTA programs I studied. The reassembled pelvic exam encourages doctors to inform patients about what is happening and why every step of the way. Ostensibly, this is to inform and relax patients. However, it has two other important outcomes. First, it favors patients who are willing and able to become responsiblized subject-figures: able to understand, accept, and work with the doctor in order to complete the pelvic exam.[15] Second, it allows the doctor to gain more and better information about the patient's health. As my interviews demonstrate, part of the goal, for doctors, of reassembling the pelvic exam was to get more information out of patients during the interview and the exam, and to better link the information gathered with clinical history and symptoms. This transforms the patient from a docile body into a subject who participates in forming her own case under the medical gaze. However, while I argue that the GTA session reassembled biomedical practices related to the performance of the pelvic exam, female bodies remain vulnerable inside and outside of biomedicine, and not all patient-bodies explicitly or implicitly invoked in the teaching encounter have equal access to knowledge, resources, and means of resisting biomedical authority that the largely white middle-class cis-gendered GTAs I interviewed do.

[15] For example, GTAs train medical students to explain the Pap smear as a "routine screening" that "we do on everybody" in order to encourage (some say "scare") patients into coming back every year for an exam.

I have offered one case of the emergence of a gynecological teaching associate program at the University of Illinois at Chicago School of Medicine. I have contextualized it in a broader historical moment in which both the field of medical education emerged and in which feminists in the Women's Health Movement politicized the teaching of the pelvic exam to medical students. As the program became institutionalized and reshaped to fit into a standardized protocol, GTAs experienced a crisis over the politicization of the program in the form of concerns over who really owned it. Broader changes in biomedicine have also changed the GTA session, as patient-centered medicine became more prominent, medical student demographics shifted, and the culture around medical students' emotional experiences has changed.

V. PRACTICING PROFESSIONALISM, PERFORMING AUTHENTICITY

> "Because the [gynecological teaching associate] is a real human being, her role as patient (a) made students feel they were deriving knowledge transferable to other patients and (b) helped dissipate sexual embarrassment and anxiety" (Shain, Crouch, and Weinburg, 1982: 648).
>
> *
>
> "The teaching session is designed to simulate an ideal doctor-patient encounter, but in order to provide quality instruction it must necessarily sacrifice some 'realness'" (Kretzchmar, 1978: 370).

Recall the vignette I opened the dissertation with: a medical student enters what seems to be a clinic room and meets a woman seated on an exam table. While the woman may appear to be an actual clinic patient, she is in fact a gynecological teaching associate, a layperson paid to teach the medical student the examination on her own body. This encounter is not an actual clinical experience for the medical student, but it is very important for medical students' development as doctors. In this chapter, I am concerned with how it is that this "fake" encounter produces "real" doctors. By real doctor, I mean someone who thinks, acts, talks, and feels like a competent physician.

The use of GTAs in medical education is beneficial for many reasons, including that it reduces student anxiety about performing a sensitive exam like the pelvic exam and it allows medical students to practice the skills required of professional physicians. However, the encounter the medical student and the GTA have is fraught with an interesting tension because it is a simulation: while the medical student needs to practice on real, living person to gain experience, this medical student cannot practice on a real clinic patient for ethical reasons (Beckman, et al, 1987; Ziv, et al, 2003). Thus, this simulation encounter balances between artificiality and authenticity. What makes the encounter artificial is that it is not a genuine clinic encounter. The GTA is not a real patient and, though she may try, cannot completely act the way

a scared or nervous patient might. She is in control of the encounter, both in order to teach and to prevent harm to herself (Underman, 2011), unlike in a clinical encounter where the physician controls the encounter. Yet because medical students need to practice their skills of working with real patients in this artificial encounter, GTAs endeavor to maintain a sort of bounded authenticity (Bernstein, 2007): an encounter that has a genuine emotional resonance for the medical student but that is limited in its intensity, duration, and scope. The work that GTAs put into maintaining this authenticity in an artificial context requires careful management of their own emotions and bodies, as well as their emotional experiences, to manage the medical students' emotional experience (Hochschild, 2012).

In this chapter, I will use three sets of literature to explore authenticity and artificiality in the GTA encounter. First, I use literature on the medical habitus (Sinclair, 1997; Luke, 2003; Lempp, 2009; Brosnan, 2009, 2010; Underman, 2015) to understand medical students' need to learn "professional" behavior in its institutional context. Medical students use this simulated encounter to practice appearing knowledgeable and professional when faced with their first experience of examining female genitalia and reproductive organs, which carry a sexual association. Second, I use literature on simulation (Hoffman, 2006) to understand the role that simulation plays in preparing medical students to engage in the "real world" of professional practice. Third, I use literature on emotional labor and body labor (Hochschild, 2012; Kang, 2010; Underman, 2011) to understand the work that GTAs do to maintain the authenticity of the experience for medical students, as well as the gendered implications of using women to teach about human interaction. GTAs maintain a separation of self and a dualistic awareness of their bodies and subject and object (Underman, 2011) in order to present a safe and friendly experience for students. I explore the tensions between artificiality and authenticity in order to

understand how, through pedagogical rehearsal, medical students come to embody medical culture through simulation. I claim that a simulation need not *be real* as long as it *feels real* to result in the inculcation of the medical habitus (Underman, 2015).

The Uniqueness of the Pelvic Exam

Medical students have encounters with a variety of simulated patient encounters through the use of standardized patients. Like GTAs, standardized patients are trained and compensated laypeople who stand in for actual clinic patients.[16] These standardized patients allow medical students to practice history-taking, communication skills, and certain types of physical examination skills (Ziv, et al, 2003). At the three medical schools I studied, medical students take an exam called an Objective Structured Clinical Examination (OSCE) at the end of their clinical skills coursework. Most versions of the OSCE requires them to perform a basic head-to-toe examination on a standardized patient. The GTA session varies greatly from other simulated patient encounters that medical schools have with standardized patients because of the sensitive and potentially sexually-charged nature of performing a pelvic exam. Performing a pelvic examination requires touching body parts that have a sexual association (Giuffre and Williams, 2000). So while students have encounters with simulated patient encounters prior to and after working with GTAs, the GTA experience is different. It is a different arrangement of teaching, and the exam presents a different kind of challenge to students' professional skills.

As I discussed in Chapter 4 on the historical development of GTA programs in Chicago, the GTA model of instruction is intentionally designed so that the GTA herself is an active part

[16] At an organizational level, GTAs are often treated as a subset of standardized patients. The professional directors who schedule their working hours and handle student feedback often also manage the standardized patients. GTAs often work out of the same facilities as the standardized patients. The Association of Standardized Patient Educators (ASPE) has a working group for GTAs and their male-bodied counterparts.

of the exam. Unlike other standardized patient encounters, the GTA's role is not merely evaluation or to provide a living body to practice on; she is the instructor of the exam. She is both subject and object of the exam, which is both beneficial and provokes additional challenges for her in the teaching encounter (Underman, 2011).

Additionally, what makes this simulation encounter unique from other types of standardized patient encounters is the nature of the exam itself. Contact with the genitals, especially the female genitals and reproductive organs, carries a sexual stigma. Medical students have to learn to manage this taboo while managing their fears about hurting the patient or appearing incompetent, as I discuss further later in this chapter. Standardized patients generally do not allow medical students to perform any examinations of their breasts or genitals, so students come into the encounter having little to no experience with examining genitalia in a clinical context. Finally, while male genitourinary exam instructors similarly teach while being examined and provide an opportunity for students to gain experience examining genitalia, their body parts carry different connotations than female body parts and the exam they teach is far less invasive.

A number of theorists have written about why female sexuality and the female body in particular evoke such feelings of disgust and such powerful taboos (see Underman, 2011). Not least of these was Foucault, who argued in his history of the discursive formation of sexuality that women's bodies are "thoroughly saturated with sexuality" (1978: 104) and thus the domain of medical science. However, given the almost unspeakable disgust that surrounds the pelvic exam, I draw also from Kristeva's (1982) theorization of the abject. For Kristeva, abjection describes the feeling of repulsion and disgust, and yet the "inescapable boomerang" of fascination. Kristeva draws from Douglas's (2002) work on the social significance of defilement

to claim that that the abject is that which is filthy but can never be completely removed from the social order. Because of the female body's association with reproduction, it is constantly being viewed as dangerous, dirty, and unclean—in a word, it is abject.

Almost all the medical students I spoke with said that they were nervous when I asked them how they felt going into the session. If I probed them on why exactly they were nervous, many gave me answers about the sensitive nature of the exam. "I mean these exams are sort of a personal, tend to be sort of sensitive, I mean they are sensitive exams by definition" (Ellie, medical student, Apr. 5, 2012). The exams are intimate and personal, but they also invoke feelings of distress or disgust because of contact with the female body.

> "I guess thinking back to before, a few weeks before doing these exams, my attitude towards the pelvic exam and the breast exam was like kind of squeamish and discomfort [sic], which I think is common among med students […] and probably the general public." (Michelle, medical student, Mar. 5, 2012)

Students mentioned the awkwardness, the intimacy, or the "the gross factor […] because […] it's older women and not exactly ideal situation" (Samuel, medical student, Mar. 16, 2012). This remark is particularly interesting because when I probed him, he mentioned the "larger, pretty obese woman" and the "gross factor" of examining her. "I know we're going to be seeing those kind of women in practice every day but just for the first time, it was a little nerve-wracking" (Samuel, medical student, Mar. 5, 2012). Here, it's not only her female body, but her size and age, which are anxiety-provoking, perhaps because she does not represent the much-lauded thin ideal of female beauty in contemporary American culture. The woman this medical student was doubly abject: female and fat (Kent, 2001).[17]

[17] I have had informal conversations with GTAs about the difference between the "ideal GTA" and the "ideal woman": would performing the exam on someone who fits into a hegemonic standard of beauty be more or less nerve-wracking?

While female genitalia and reproductive organs make students nervous because of their associations with unpleasant ideas, the female body is also associated with sacredness and taboo of an almost spiritual or religious quality. "I think there's a unique thing […] I think it's at some level of sacredness or something like" (Ellie, medical student, Apr. 5, 2012). Theorists writing on the female body have noted these tensions between the abject or repulsive quality of the vagina and the sacred or mystical qualities of it (Kristeva, 1982). It is filthy, leaky, and disgusting, but it is also hidden and life-giving.

In addition to these discourses about the female body invoked by the pelvic exam, there is also the taboo that is crossed of opening up a body and seeing or feeling inside it for the first time. Unlike the other exams, the pelvic exam requires the medical student to use a speculum to visualize a hidden and taboo bodily organ, the cervix, and to insert their fingers into the vagina to examine it.

> "It's really intriguing that it's the one exam where you can really see internal organs without it being a cutting, invasive exam. It's such a sensitive exam and it's so challenging sometimes for the students because of what, as a culture, you bring to the genital area." (Ruth, GTA, Mar. 9, 2009)
>
> *
>
> "It's on the inside of a person**.** It's the first time that most of these students are really on the inside of anybody that's alive." (Vivian**,** GTA, Sept. 2, 2009)

The taboo about female genitalia is linked to the taboo about invading bodily boundaries and transgressing the divide between the interior and exterior of the body. Again, Douglas's (2002) foundational work on social and bodily boundaries is relevant. In Lawton's work on "dirty dying" and hospice care (1998), she draws from Douglas to argue that Western culture associates a perfectly bounded body with full personhood. Boundaries around the body and taboos about leakiness, messiness, or odors, serve to reinforce our ideal of self-contained, self-sufficient individual. The body that is open, leaking, or otherwise unbounded evokes a loss of personhood.

Thus, part of the GTA session is learning about how to invade bodies, cross bodily boundaries, and deal with this taboo and potential loss of personhood.

One aspect of the exam, which was an area of contention politically, as I discussed in Chapter 4, is the presence or absence of menstrual fluids. While GTAs take pains to define menstruation as a normal and healthy process of the female body, one that doctors-in-training should learn to become familiar with, the current view of programs in Chicago tends more toward reducing student anxiety.[18] Students already have a great deal of anxiety, as I outlined above, and adding female leakiness to it would further pique their nerves.

> "[S]eriously, the students get freaked. […] They're going to see blood because they're going to be doctors. […] But […] this exam doesn't have to be a crash course in what's most difficult. […] They [students] would get really nervous. I had this one time, 'Is my teacher going to be bleeding?' You know, it was like that kind of stuff. It's like, okay, why make this into something even more stressful?" (Lena, professional director, Dec. 14, 2011)

Lena and other directors like her reduce students' exposure to something that would otherwise increase their anxiety about performing a pelvic exam by not allowing GTAs to be menstruating while teaching. I discuss these political implications elsewhere. What is important to note here is that medical students express intense anxiety about examining the female genitalia and coming in contact with bodily outputs—however normal—that may be associated.

Despite, or perhaps because of, these anxieties, medical students tend to view the GTA session with a certain amount of singularity. As I discuss elsewhere in this chapter, medical students approach the completion of a simulated pelvic exam as a milestone, whose accomplishment will induct them into the professional of medicine.

---

[18] While it is generally agreed upon in the medical community that a Pap smear shouldn't be done while the patient is menstruating, there are a number of other reasons a patient might be examined while menstruating or spot-bleeding.

> "What's nerve-wracking? [… It's] like a weird odd, experience. It is something you wouldn't normally talk about with your friends. It is not something you normally do. It's a sensitive area, so it is sort of a strange thing to be able to do that and tend to be comfortable doing it. […] So I think the important thing is to be able to learn how to do that become comfortable, as I guess it's an important exam as a physician." (Roger, medical student, Feb. 3, 2012)

The pelvic exam is unique among simulated patient encounters and different from work with standardized patients because it is so much about transcending the barriers that divide the profession of doctors from everyday people.

> "There are always things that wouldn't be normal in everyday life that are suppose to be normal and you really have to have a transition to be able to do that. […] [I]t helps bridge the gap between being a non-physician and being a physician." (Roger**,** medical students, Feb. 3, 2012)

Here, becoming comfortable with performing the pelvic exam is much more than just the skill. It is about overcoming the taboos and sexualized discourses that make the pelvic exam such a strange—and therefore unique—experience for medical students. The heavy charge of abjection and violated bodily boundaries that the pelvic exam carries is what makes the GTA session so much different from sessions with standardized patients. This difference presents a unique opportunity to practice the skills required of a professional doctor, as I discuss in the next section.

Simulation, Medical School, and the Pelvic Exam

The overarching goal of all forms of simulation in medical school is to prepare medical students for encounters with future patients. As Hoffman argues in his ethnography of a boxing club, simulations "are those repeatable activities that are defined by members of a task group as an approximation of some other scenario or activity that is more real" (2006: 175). Participants

in simulation engage in what Hoffman calls everyday ontology: belief that the simulation is analogous to a real situation means that the consequences of a simulation are real. For Hoffman, simulation serves three functions. First, simulation is about risk-management: "I argue that in preparations that require a high degree of interdependence among participants, the greater the risk and consequence of a performance, the more likely one is to find an elaborate range of simulations" (2006: 172). Second, socialization processes are often black-boxed, in that the results are evident but the process is not, so Hoffman claims that simulation is one way in which "practitioners to try out different techniques, behaviors, and social roles that may or may not be adopted later" (2006: 174). Third, simulations are flexible and transportable, in that they "are simplified subsets of a more complicated reality" (Hoffman, 2006: 176). Breaking reality down into these subsets of skills and actions allows such skills and actions to be taken across a variety of social situations and physical spaces.

In this first section, I demonstrate that the GTA session shares a number of characteristics with Hoffman's formulation of simulation and I link the use of simulation to the inculcation of the medical habitus. The medical habitus encompasses the dispositions of a physician that align her with the field of medicine, including her thoughts, perceptions, emotions, ethical judgments, and techniques of the body (Sinclair, 1997; Luke, 2003; Brosnan, 2009, 2010; Underman, 2015). The medical habitus is, crucially, as secondary habitus (Bourdieu, 2000; Wacquant, 2014). In his ethnography of training to become a boxer, Wacquant (2003) showed how the repetitive rehearsal of techniques of the body allowed him unconsciously develop the dispositions that transformed him into a boxer and aligned him with the field of boxing. Hoffman's work, also on boxing, showed how the rehearsals of simulation are a mechanism of socialization. I argue in this

chapter that the low-risk, playful nature of simulation allows medical students to begin to unconsciously adapt to the field of medicine.

As I discussed in Chapter 4, the use of simulated patients like GTAs marks an important ethical shift in medical education. Prior to the development of simulated patients, medical students learned clinical skills like the pelvic exam on actual clinic patients. These arrangements made learning difficult, since the patients couldn't give feedback, and they were exploitative of patients.

> "I was talking with a cousin of mine who's like 60-something and he's been a physician since the 70s, and he said, 'When I learned that stuff, we were thrown into a room and we were just told to do it.' […] [Simulation] allows them [medical students] to go in and have a little bit of knowledge basically before they go into some type of exposure [in the clinic]" (Sergei, professional director, Jan. 27, 2012).

The advent of simulated patient encounters like the GTA program allows medical students to gather knowledge and experience before they encounter actual patients, rather than just being "thrown in" with patients. The medical faculty members who I interviewed emphasized the importance of a variety of simulation technologies for providing students the ability to practice clinical skills. Ranging from learning how to draw blood to the pelvic exam to a complex, inter-professional surgical encounter, simulation technologies provide a way for medical students to gain experience before they see clinical patients.

> "That's what this is all about in general: giving the students an opportunity to learn the basics and to practice before they're given the real, the live patients" (Dr. Sandlow, medical faculty, Feb. 20, 2013).
>
> *
>
> "[T]here is a tremendous benefit both from the student's point of view […] [Y]ou can practice […] and get proficient at it before you're doing it on the real patient. Instead of doing that steep part of the learning curve on your first five patients, you're doing them on a model. By the time you get to the patient, you know how to do it, you did most of your mistakes already, in the patient environment and you could do the procedure much more safely on the patient" (Dr. Orlin, medical faculty, Jan. 23, 2012).

In this way, simulation allows for a rehearsal in a low risk environment before the stakes increase. Simulation in medical education reduces risk for the medical student and the patient. As I will show in this chapter, simulation also begins the work of inculcating the medical habitus by allowing medical students to rehearse the skills and attitudes required of a competent physician.

Students expressed over and over in my interviews that they appreciated being able to rehearse the skills that they would be expected to perform in the clinical setting. Students are aware of the risks to themselves and to patients, and they want the chance to "play," as Hoffman (2006) would call it, with the techniques. Medical students feel nervous about both having to perform the exam with confidence that they don't have and having to touch real people in sensitive areas in a nonsexual context for the first time.

> "I was really nervous […] [The exam is] very sensitive and [it's] not one that as a patient you look forward to having. So I was nervous about sort of doing that as a first year med student and having no experience, no expertise but sort of acting kind of presumptuous enough to perform them on actual people." (Michelle, medical student, Mar. 5, 2012)
>
> *
>
> "The anxiety that everyone had was like a baseline anxiety […] And I think it's more to like kind of curb any anxiety […] I feel like it's less about learning and perfecting the technique early but more just like practice or like doing something that's uncomfortable, like confronting the anxiety and making yourself and the patient comfortable." (Daphne**,** medical student, Mar. 26, 2012)

These comments reflect what I noticed overall in my interviews with medical students about performing the pelvic examination for the first time on a living person. Medical students reported feeling extremely nervous about appearing to not know what they were doing, about hurting the person, and about having to touch someone in such an intimate and taboo area for the first time. The GTA experience allowed them a comfortable, safe environment to practice their skills, and led to a reduction in their anxiety about performing the exam. A number of studies about GTA

programs back up this finding (see Shain, Crouch, and Weinburg, 1982, quoted at the beginning of this chapter).

The students I spoke with found it especially important to be able to rehearse their skills on a living body that would not rush them, interrupt them, or otherwise be too uncomfortable.

> "I feel like with the [GTA] teacher, you can explore as much as you like. With a patient, you can explore, but you run the risk of like, why is his [the medical student's] hand still there […] With the teacher, you can do as much as you want, as little as you want, whatever. With the patient, […] you're there until you find what you need to find, then you're done." (Jeff**,** medical student, Aug. 8, 2012)

This type of simulation removes the techniques that medical students are attending to master from the explicitly goal-oriented actions of the clinic, which allows for more reflection and exploration. For Jeff and other medical students who echoed his viewpoint, the GTA allows them an opportunity to practice and to explore ("play" with) the performance of clinical skills, including the technical-manual exam skills and the communication or inter-personal interaction skills. These skills and attitudes are transportable and flexible, and they can be used in arenas of patient care outside of the pelvic exam. For this reason, I claim that this kind of reflexive "play" allows them to begin to inculcate the medical habitus. By rehearsing their skills in simulation, medical students begin to embody the actions and attitudes of the field of medicine.

Simulation is also associated with reduction of risk to future patients. Because of the risks of having inept medical students trying out their skills on them (and for other reasons, as I discuss in Chapter 4), it is no longer ethical for medical students to use clinical patients. Medical students especially were aware that having someone without any experience performing the exam would make a patient nervous: "I know if that were me and I was getting that exam, I think it would make me really nervous to have someone who had never done it before" (Molly, medical student, Jan. 28, 2012). These concerns are linked to their own presentations of

nervousness: "I think it's probably would have negatively affected the patient because they would probably see how nervous I would be" (Emory**,** medical student, Apr. 5, 2012). Such nervousness could lead to mistakes that might harm the patient. Simulation provides a low-risk solution to the dilemma of needing students to still rehearse their skills on real people before they enter the clinic and see real patients.

As a number of medical students told me, they were apprehensive about performing the exam on real patients because of the limited amount of feedback they might receive. The GTA session, by simulating the pelvic exam, reduces risk by allowing for freer and more open communication about technique and potential harm.

> "[L]et's just say I were doing a speculum exam on a patient and there was the head physician behind me and I am inserting it wrong and I don't know if the physician would be willing to say something like, hey you know if you do that you can slice your urethra and cause trauma to the patient. That will make the patient I think kind of nervous and upset." (Roger**,** medical students, Feb. 3, 2012)

While the pelvic exam is arguably much less risky to a patient's health than invasive surgical procedures, there are still some risks of bruising, tearing, and damage to the genitals and reproductive organs.[19] Simulation through the use of GTAs thus reduces harm to actual patients by the inexperienced behaviors or mistakes of medical students, and thus improves patient care (Prentice, 2012).[20]

[19]While it is possible to compress the urethra with a speculum in a manner that is uncomfortable, it is not actually possible to slice the urethra with a speculum. For this reason, students are encouraged by GTAs to call them speculum "bills" instead of "blades".

[20] Medical students at one school in particular were aware of the history of using clinic patients in medical school. Most of them used very similar, if not the identical, phrasing and terminology to recount how medicine has become less "paternalistic" and more "patient-centered" by not exploiting clinic patients. The history lesson seems to be a cornerstone of their clinical skills education.

The skills that students acquire through simulation are flexible and transportable. Students found the experience valuable not just for performing the pelvic exam, but in general for learning about patient contact.

> "[O]ne of my biggest fears […] is doing a gynecological exam. Coming into medical school and so being able to do that before you do it in clinical practice is really valuable […] I think as medical students especially in our third year we're constantly walking into situations that we've never experienced before and things that we're not entirely comfortable with. So to cut out some of the mystery of examining the patient as in patient in a clinical setting, […] the better off we are." (Molly, medical student, Jan. 28, 2012).

The medical students I interviewed who voiced a similar opinion appreciated the GTA session because it was perhaps the most intimate and intense patient-contact experience they would have in their first or second year of medical school. While the skills they learned were beneficial for the pelvic exam, having performed an exam that was so intimate and had such a potential to be awkward allowed them to conquer this hurdle of being nervous about any sort of bodily contact with patients. The skills they developed in the GTA session thus could be applied elsewhere in clinical practice. The flexibility and transportability of the skills developed in simulation goes hand-in-hand with the use of simulation as a mechanism for inculcating the medical habitus.

While simulation of the pelvic exam through the GTA session shares several key characteristics of boxing simulations in Hoffman's (2006) work, it is especially beneficial for medical schools because GTAs can be more or less standardized. This means that medical students will all receive roughly the same education. "One of the things it allows is for students […] to get a consistent experience […]" (Dr. Nichols, medical faculty, June 20, 2012). As medical education in general has shifted more toward standardization and the scientization of medical knowledge, teaching clinical skills has followed. GTAs are instructed in a consistent manner on how to teach the skills of the pelvic examination.

> "So when you're an M3 or M4 student, a lot of them learn exam skills, are just taught informally by the attending physician and by the resident. They can be fantastic instructors and teachers. They could be awful. So it just really depends on your luck of that day, that team, the hospital, that clinic, whatever it is. With the GTAs […], they teach you in the same manner, every day, every time, regardless of who you are. That's key, that all of us, every single one of us in that class, has the exact same baseline, and then you can take it from there." (Basil**,** medical student, Aug. 24, 2012)

Rather than gaining their skills from a single or select group of physicians, who may have individualized approaches and practices, the use of simulation through GTAs makes certain that medical students learn a consistent set of both technical-manual and interpersonal skills. This is done through the use of scripts and checklists that are taught to and used by the GTAs. Another technique used by Lena, the director, is to have GTAs teach in pairs. Otherwise, GTAs tend to adopt individual habits and explanations. When forced to constantly work together, they tend to be more standardized. What Chicago and other major metropolitan cities also have as an advantage is that GTAs mostly all work for all of the medical schools. Not only then are medical students individually getting the same skill set, but they are getting the same among medical schools. However, as I discuss in a section below, while the teaching styles and content of the GTA session can be standardized, human bodies themselves are not standardizable.

In this section, I've presented an overview of the benefits of simulating the pelvic exam, using Hoffman's (2006) ethnography of a boxing ring. Like boxers, medical students use simulation to try out or "play" with skills in a low-risk environment. I link the reflexive "play" or simulation to the repetitive rehearsal of styles of embodiment that lead to the adoption of a secondary habitus (Wacquant, 2003, 2014). In the next section, I explore more fully how the GTA allows medical students to begin to embody the medical habitus by rehearsing a specific disposition: that of professionalism.

Professionalism in Context

Medical education involves a number of milestones as students move from being students to becoming "real" doctors (Lempp, 2009). Understanding these milestones is important for opening up the black-box of medical socialization and observing the work of inculcating the medical habitus in action. The medical students I interviewed often spoke of these moments as learning *professionalism,* a term they used over and over again in interviews to refer to a set of practices including verbal and nonverbal communication and attitudes that signified a "real" doctor. The goal of professionalism and consciously developing professional skills is to eventually to be able to think, act, and feel (in a tripe sense: experience emotion, tactical sense, sense of oneself) like a physician without having to deliberately reflect on the appropriate behavior.

One of these milestones of professionalism is the first time they perform an intimate examination on another person. As Jacob put it, "when you do this, the [pelvic] exams, it just feels like you're in medical school" (medical student, Mar. 13, 2012).

> "It's sort of another one of those milestones that you go through in medical school that everyone else goes through. So it's like anatomy lab or taking the wards or something like that. It's something that everyone's done and it kind of gives you this community, I guess, with the other medical students." (Jason**,** medical student, Mar. 3, 2012)

The students I interviewed spoke about performing the pelvic exam as an important rite in their education, as the first time they would have to touch an actual, living person in a sensitive and sexually-charged area of the body without reacting negatively. Like encountering cadavers in the anatomy lab, the experience of learning the pelvic exam requires medial students to manage their initial emotional reaction (Fox, 1988; Hafferty, 1988). It is an important step in the process of becoming a doctor. That sense of belonging to the community that medical students reported

feeling demonstrates that medical students recognize that there is a distinct culture of biomedicine to which they must belong if they want to not just do exams but actually *be* a doctor.

Professionalism in this context is crucial for maintaining barriers between the intimacy of working on another's body (Guiffre and Williams, 2000; Underman, 2011). Because the breasts and vulva or vagina are sexually charged body parts and because examining a naked person invokes ideas about sexuality, maintaining these professional barriers keeps the experience from becoming uncomfortable, for medical students as well as patients. Young (1997) argues that because the body is fraught with complex meanings, physicians and patients learn to establish and maintain boundaries to navigate sensitive examinations. In the examination, "[a] complex choreography involving the disposition, shift, removal, and replacement of boundaries is undertaken by physicians in concert with their patients" (Young, 1997: 11). While medical students practice parts of the head-to-toe exam on standardized patients prior to working with GTAs, for the majority of them, the GTA encounter is the first time they will touch a sensitive area. Scholars of body labor (Giuffre and Williams, 2000; Wolkowitiz, 2006; Kang, 2010; Underman, 2011) have noted the ways in which control over touch (such as through the use of draping and gloves) and language (such as sexual joking) are part of maintaining barriers against intimacy. The medical students I spoke with talked about learning these types of barriers in the GTA context as part and parcel of developing *professionalism* as a practicing physician.

> "[W]hat it's [the GTA session] doing is sort of getting us to a stage of working on some professionalism skills early [and…] such invasive exams require a slightly higher level of professionalism I would say." (Ellie**,** medical student, Apr. 5, 2012)

This skill set is important for being able to present oneself as a competent physician by managing the patient's emotional state or anxieties related to the exam. As Molly put it, "If you're nervous,

the patient can tell, so I think that's [the GTA session] a valuable experience" (medical student, Jan. 28, 2012). Michelle described professionalism as, ""[P]rojecting confidence even if I don't feel confident I think is important" (medical student, Mar. 5, 2012). A nervous physician is not a competent or trustworthy physician, but a confident, *professional* physician is. Learning to project this confidence with patients is essential for medical students to fully embody the medical habitus.

One of the skills students practice in the GTA session is learning which words to use to maintain barriers around intimacy. GTAs teach using the acronym ICE: inspect, check, examine. Often medical students go into the encounter using terms like "feel" or "touch," as in, "I'm going to feel your breast," or "I am going to touch your vulva." GTAs teach medical students that these words can evoke uncomfortable sexual ideas for patients. The medical students I spoke with seemed to really internalize this lesson as an important marker of their professionalism.

> "Yeah, so I mean professionalism comes from a lot of things, it's a broad category I guess. But with the sensitive exams […] the personal nature of that makes it such that for instance your vocabulary should be especially attenuated for these patients. […] One of the words that you portably should not use in clinical scenarios is for instance using the word 'feel' to describe when you're going to check them or inspect something. 'Feel' is a word that can elicit sort of emotional feelings when you're performing an exam […] Patients are probably more primed to hear something like that and have it eliciting confused or emotional response during a sensitive exam versus a not sensitive exam. So we really hone into those words […] exams are all about the communication between doctor and the patient." (Ellie**,** medical student, Apr. 5, 2012)

Being able to use language in this way became almost a source of pride for the medical students I interviewed. They felt like they *appeared* to be competent professionals navigating this confusing, potentially sexually-charged situation of examining genitalia, even if they didn't fully embody it yet.

Another skill set for maintaining barriers is the control of touch. GTAs teach students about not only how to wash their hands and put on gloves with clean technique (which reduces the amount of bacteria, viruses, or dust in an exam room that can be transferred to the vagina via the hands), but also how to appropriately drape and undrape the patient. Young (1997) writes about the importance of the drape sheet for creating and maintaining perceptual modalities in the pelvic exam, which explains in part why GTAs teach to have the table slightly upright so that patients can see the physician. Learning to manage these perceptual modalities becomes part of professionalism for medical students.

> "[T]here's a lot of sensitive things that are priority in the doctor patient-relationship and just learning how to address them [the patient] and direct them, creating modesty and just keeping the right amount of a patient's body uncovered. That applies to many things, in exams, many parts of any exam. So that's huge being able to do that and just having the right manners and using words that don't have possibly sexual meaning. That's something you can do always, even if you're just working on someone's lung and that would make people feel more comfortable." (Stephanie**,** medical student, Mar. 7, 2012)

Learning how to manage language, touch, and draping in any exam context was one of the most frequent responses I got when I asked medical students whether they learned anything from the GTA encounter that would be applicable outside of the sensitive exam. Thus, the GTA session is an important component of developing professionalism as part of acquiring the medical habitus. Rehearsing the acts associated with professionalism, by learning to control touch, words, and emotions, leads to adopting professionalism as second nature (or, as Bourdieu would say, as history turned into nature).

Medical students recognized that professionalism is a skill that cannot be learned out of a book. It must be learned situationally, in a context where medical students are forced to interact with a real, live person.

> "So I think that they [clinical skills education classes] try to […] teach you professionalism and I think it's something that can't necessarily be taught […] you have to like learn it by experience. […] [Y]ou can't really teach professionalism. You can say what you should do, but until you're in a situation, like sort of teach by example I guess." (Sarah**,** medical student, Mar. 13, 2012)

Medical students told me rather frequently that they weren't sure they could pull off professionalism until they were in the room with a living person and had to examine her. Thus, to embody professionalism, medical students need to actually experience it, which demonstrates another way in which the GTA session is part of the process of inculcating the medical habitus. The habitus is associated with knowledge that is not explicit and that cannot be brought up to the level of discourse without being changed; for Bourdieu, it is always learning-by-doing (1972). This highlights the hands-on nature of the work of inculcating the medical habitus: it must be rehearsed quite literally in the flesh in order to become part of the medical student.

A major component of learning professionalism is learning how to work with patients. The use of simulation in the GTA encounter teaches medical students about the patient experience, which was a benefit that both medical faculty and students cited, and was an aspect that the GTAs I interviewed also mentioned as a motivating factor.

> "I also think that the approach that we take [using GTAs] makes it very much the patient-centered experience and that we constantly kind of remind the students […] what can we do, how do we make the patient more comfortable, what strategies can you do to make the patient more at ease and I think that having that kind of mindset makes the student much more prepared to sort of approach the patient in a way that is – have empathy […] I think it makes them a little more open to what the patient experience really is." (Dr. Leslie**,** medical faculty, Mar. 26, 12)

A number of medical faculty and students voiced similar opinions about the "patient-centered" benefit of using GTAs to teach the pelvic exam. While this was at times related to a desire to empathize with patients, it was more often connected to the professional skills a medical student

must master to be seen as competent by colleagues and patients (DelVecchio Good, 1995). Awareness of a patient does not necessarily mean appreciating the patient's subjectivity, but it is linked to a range of techniques that medical students must learn as part of the medical gaze (Foucault, 1994)**.** I elaborate on this in Chapter 6.

Medical students at least at one of the schools were very protective of their emerging culture of medical professionalism. Several mentioned the following story as a violation of this culture.

> "[I]t's [professionalism] just like having the respect for certain things and realizing that […] certain things are done for an important reason […] for example, somebody in our class made a joke about the exam, and it was like very inappropriate and unprofessional […] even just think that we're having awareness to know when these kinds of jokes that are okay and […] not to be tying in what we have to do as doctors, in ways that can be questioned. Just to give you an example […a medical student posted on Facebook…] during the breast exams […] He says like, 'Doing my breast exam on Valentine's Day, guaranteed play.' […] I think he's not realizing that by putting that on Facebook […] if one of his friends […sees it…] and his friend is going for a breast exam tomorrow, and then she's like, 'Wait a minute, is my doctor like thinking like this is play?'" (Tricia**,** medical student, Mar. 29, 2012)

This medical student's joke on Facebook made an association between performing the breast exam and a sexual situation ("getting play") by sexualizing the work that both GTAs and doctors do. Even though the joke was made in a semi-private, nonprofessional context like Facebook, it threatened the emerging culture of professionalism that the students were developing. The students themselves responded; the class president sent out stern emails reminding students to remain professional in every context. Thus, professionalism isn't simply part of on-the-job practice, but rather it relates to the larger field of medicine and one's place within it. Medical students aren't just training to practice medicine like a physician—they are training to think, act, and *be* physicians, which is a transformation in identity that doesn't stop at the clinic doors.

This story is also important because of what it represents about medical students' relationship to sexuality as it appeared in my interviews. Sexuality was either never explicitly mentioned or was only mentioned in roundabout ways as a potential threat to be removed from the encounter. Their lack of discussion about their own sexual feelings—even when I probed them to more fully explain *why* they felt uncomfortable doing the pelvic exam—demonstrates how even in the first or second year of medical school the need to desexualize intimate contact (or at least appear to, to a relative stranger conducting the interview) has become embodied.[21]

Thus, the GTA session is an important component of developing professionalism as part of inculcating the medical habitus. Medical school shares a lot in common with Wacquant's (2003) training as a boxer. It is an intentional repetition of actions and attitudes as part of training to enter a new field until these become unconsciously part of the body. Rehearsing the acts associated with professionalism, by learning to control touch, words, and emotions, leads to adopting professionalism as second nature. And it must be *rehearsed* through simulation in order to become part of the medical student. However, in order to be prepared to work on real, living people, medical students need to practice on real, living people. The affect of the encounter cannot be simulated by anything but a human, as I discuss below.

Authenticity and Artificiality

In the medical schools from which I recruited, the students first try out their clinical examination skills on a plastic model before seeing the GTA. These models vary in quality and sophistication, as well as age. Medical faculty reported that practicing on these models was

[21] GTAs, on the other hand, were far more willing to open up about the slippages in sexuality during the pelvic exam (see Underman, 2011, for a discussion of these slippages and GTAs' perceptions of how successfully medical students are able to separate their own sexuality from the encounter).

useful for students to learn the basic techniques, but that to truly learn students had to examine an actual person. As medical faculty member Dr. Matsuda explained:

> "The […important thing…] is being able to do these exams on an actual person – with an actual person. You know, the models cannot simulate what an actual body is like. And even our models, which we got some brand new ones, they're very good, they're very expensive, but they do not – they are not the same as a human body. So that is also incredibly valuable. […] I mean it's just not possible with plastic to simulate the pliability and elasticity of human tissue. And just the way that human tissue responds to pressure. That is just not – that can't be simulated using plastic." (Jan. 11, 2012)

What makes examining a real person valuable, then, is that biomedical technology so far does not have a type of plastic model that accurately simulates the experience of performing a pelvic exam on a living person. Living tissue palpates differently than synthetic tissue in simulation models or the decaying tissue found in a cadaver. When ethical dilemmas about using clinic patients were first considered among medical educators, cadavers were posited as a possible solution to this dilemma (Kapsalis, 1997; Beckman, 1988). However, a living person is essential.

> "With the cadaver, a lot of those organs are withered away. And those relationships at least, they aren't preserved so well, specifically with the ligaments and the arteries and stuff like that. And not that we're actually feeling arteries on a pelvic exam, but that relationship is not as clean as in a living, you know. You can read as much as you want about these maneuvers and manipulations, but until you're doing it, eventually you have a bimanual exam where you're actually sweeping across the pelvis, feeling for ovaries, until you do that, do you realize, oh wait a second, all those ligaments are actually not fixed […] They move and here I am moving them and I can feel the texture of the ovaries." (Basil**,** Aug. 24, 2012)

Thus, even practicing the examination skills on a cadaver is not adequate for medical students to obtain a suitable understanding of how the anatomy should feel during the examination. But the situation of performing a pelvic exam is more complex than the elasticity or feel of actual living tissue. A GTA is beneficial in part because she can give feedback, as I discuss later in this section.

Even as inexperienced as they are, medical students understand this. Some typical responses that I received echoed that plastic models weren't useful substitutions for living tissue.

> "I think the models help with the basic stuff, but it is almost totally different. It's different from a real person. I mean, some of the things they are showing are very subtle." (Ted, medical student, Mar. 27, 2012)
>
> *
>
> "I think having an idea of where things should be […] can be really helpful. So I like working on models, I mean they're not always super realistic, it depends on how good they are but I thought it was helpful." (Stephanie, medical student, Mar 3, 2012)

While the medical students I interviewed felt, in general, as though the plastic models were useful for reducing their anxiety about the actual mechanics of the exam, they also understood and could readily feel the difference between plastic and living human tissue. Thus, in order to gain appreciation for how actual tissue feels, medical students need the experience of actually touching living tissue. In Chapter 6, I discuss this further by showing how medical students use the GTA encounter to develop embodied perception.

However, the clinical examination encounter goes beyond manual skills. It is not just doing the exam that causes problems between doctors and patients. It is the piece where a doctor must actually interact with a sensate person in a competent and caring way. What simulation encounters like GTAs do is allow medical students an opportunity to rehearse both the manual skills and the piece of the examination which requires them to interact with real people.

> "[Y]ou can't take a piece of plastic and put a speculum in it. It's not the same […] So it's more than just you know, how do you use a speculum, how to attach the light, how to use a cytobrush, but it's about how do you talk to a female patient about what you're about to do, how do you approach the patient, how do you talk before touch. And so we need a lot of students to practice that so that when they are in an environment where they are doing that pelvic exam on an actual patient that they're able to reflect that on that experience that they had." (Dr. Leslie**,** medical faculty, Mar. 26, 2012)

What came up, over and over, in my interviews with medical faculty, students, and the directors of GTA programs is that there is no substitution for performing the examination on a living person who can talk back and who expects to be treated with a certain level of care and dignity. Plastic models are helpful for learning the basic movements and techniques or "procedural skills," but to learn the subtleties of correct language and attitude, and to learn how to appear confidence and competent, medical students must perform the examination on a real, sensate person.

While students may be nervous about forgetting steps or knowing normal from abnormal, I'd like to suggest that what they are most nervous about is the *affect* of the encounter: appearing incompetent in front of the patient, being embarrassed or embarrassing the patient, hurting the patient. These moments of tension are about both the medical student and the patient's embodied experiences of emotion. With the pelvic exam in particular, the need for appropriate management of one's own and the patient's *affective disposition* is heightened and students are more nervous about the potential for error.

> "I think it has to do with the fact that on top of the invasive exam, you also have to connect with the person and maintain a rapport and interact with them just as you do anybody that you see on the street […] I guess the presence of the sensitive exam sort of poses the question, 'Oh, am I talking to them right?' […] Which of course you don't have to worry about [with] the dummy […] you don't have to worry about […making…] a dummy comfortable or putting them at ease." (Michelle, medical student, Mar. 5, 2012)

Thus, what makes working with a GTA so important is that medical students need real people to learn how to navigate the affective components of the examination, the part where fleshy human beings—patient and doctor—have feelings and emotional responses to what is physically happening. This demonstrates the crucial role that affect has in the constitution of the medical habitus.

However, medical students are especially cognizant of the artificiality of this context. While they appreciate performing the examination on a real, living person, they also are aware that the GTA is a simulation: she is not the actual experience of performing the pelvic exam on a clinic patient. Just as students approached the differences between plastic models and real bodies, they also noticed a difference between a GTA who is trained and comfortable, and a clinic patient who will most likely not be. They also noticed a sense of artificiality to these encounters.

In part, this is because students are aware that the GTA is not a real *patient*, though she is a real *person*.

> "You're not actually trying to get to a diagnosis or treat her whereas when you talk to an actual patient who has an actual complaint all of your questions and your physical exam are pertinent to figuring out what's going on and about. I think that's the difference there for us like this connect with an actor versus somebody with a complaint or somebody that's a well visit [annual exam]." (Molly, medical student, Jan. 28, 2012)

Some of the students I interviewed voiced similar opinions. While they appreciate getting the opportunity, there is a disconnect in the experience for them where they realize that the GTA isn't a real patient and doesn't act like a real patient. Here, in part, it is what makes the GTA program important – the GTAs' levels of ease with the exam – that makes the encounter different.

> "GTAs are healthy, normal, and will give you feedback. Patients may not be healthy, may not be normal, don't really give you feedback, are sitting there […] They're all tensed up and they're scared, embarrassed, for whatever reason. Not all people are like that, but the teacher is very comfortable, very inviting, engaging, because they're for teaching you. The patient is not there for teaching you or just in a different way, or you learn from their pathology. […] [With a GTA,] there is no, I don't know what it is, like a rush, a high, an incentive to actually get the information I need to get, whatever it's by a history or a physical exam." (Jeff, medical student, Aug. 8, 2012)

For medical students, then, while the GTA allows them to experience interacting with a human being, they are not able to completely simulate a nervous, scared, or embarrassed patient. Here, the correlation between the simulated environment and the real-world encounter breaks down (Hoffman, 2006).

The GTA teaching session is limited in its ability to be standardized as well. The protocol that the GTAs use, their scripts and language, and the skills they teach are more or less uniform from instructor to instructor; however, their bodies themselves vary greatly. Just as individuals react differently to this encounter and require different approaches to the interpersonal skills, different types of anatomy require slightly different techniques to assess them. For example, the position of the uterus can affect how easily the cervix is found and the fundus and ovaries palpated.

> "I just didn't get a sense of different body types and if they have different anatomy of the uterus, for example, some are retroverted, some are anteverted[22] […] People who have given birth vaginally versus people who haven't. The instructor we had hadn't had any vaginal births, so that makes a difference in the opening of the cervix." (Christopher, medical student, Mar. 6, 2013)

While medical students were aware that the GTA session is more about exposure than developing nuanced expertise, many said that they would have liked to practice the exam on different GTAs to get a sense of the variety of the female body. Many also mentioned that being able to exam abnormal pathology as well as normal might have been helpful to really understand the difference. Normal is normal in medicine only when the individual has been processed by the medical gaze and the cases aggregated (Foucault, 1994), which means that only those who have

[22] Retroverted and anteverted refer to positions of the uterus. During the bimanual exam, it is important to assess the size, shape, and texture of the top of the uterus, the fundus. Sometimes the position of the non-pregnant uterus can have consequences for pregnancy and childbirth. Most uteri are anteverted, meaning tipped forward. However, uteri can also be midline (flat) or retroverted (tipped backward). All of these positions are considered healthy and normal.

"normal" variations of the female anatomy are able to work as GTAs. Other variations are presented later in medical school as pathology.

Finally, the GTA experience is noticeably artificial because of the difference in standards it sets. Medical students work with GTAs and standardized patients during what in the first or second year is called Essentials of Clinical Medicine (ECM), a course on basic patient interaction and exam skills. Often students are tested at the end of this course on their skills. There are certain types of communication skills that the GTA program uses that are emphasized in every unit of the ECM course, such as "talk before touch" and neutral feedback. The medical students I interviewed expressed awareness that there is a distinct difference between what is expected to pass the test in the ECM course and what happens in the clinical setting.

> "You know, they're [clinical encounters] rushed. So there's two sets of standards, basically. There's the ECM standard. […] So, there's ECM language, ECM standards, and then the real world standards. […] [Y]ou can't say, I'm going to take a look, or I'm going to touch, or I'm going to feel [in ECM]. […] You have to say either inspect, check, or examine." (Christopher**,** medical student, Mar. 6, 2013)

Other students similarly told stories about the differences between ECM standards and so-called real world standards. Students went through the GTA session and learned the standardized language and skills, but then went into the clinic and watched their preceptors and faculty practice in a completely different way. The adherence to ECM principles like informing the patient before touching the patient ("talk before touch") and using words like "inspect" or "check" instead of "feel" is not as strict in the actual clinic as it is in ECM workshops. Some students even reported being chastised for attempting to maintain the ECM standard in the clinic. In this way, medical students who came into the GTA encounter with some clinical experience were especially cognizant of how artificial the context is.

Medical faculty similarly noted concerns with the artificiality of the context.

> "[Y]ou get people who think they're really good in a standardized setting and then you put them in an actual human being setting and they're not so good." (Dr. Leslie**,** medical faculty, Mar. 26, 2012).

Medical faculty admitted in my interviews that sometimes students were excellent in dealing with the exam and interpersonal skills with a GTA, but when faced with an actual patient, became too nervous or uncertain to perform the exam. In an artificial context, the stakes aren't as high as the real world clinic, so medical students may perform better in the simulation encounter.

Thus, the GTA encounter exists in a tenuous space between the performance of an authentic clinical encounter and the artificiality of a simulated encounter. As Hoffman argues, the "effectiveness of a simulation thus depends on […] how well participants translate the imperfect fit between contextual norms of the simulation and the reality it is based on" (2006: 172). Standards may be different, GTAs may not totally act like real patients, and techniques that may work on one GTA may not work on every person. Yet the GTA session remains effective in practice, though it is noticeably artificial, because medical students are able to translate the encounter from simulation to clinic through its affective resonance. The GTA session is valuable as a type of simulation because medical students must encounter and learn to manage affect. This ability to translate the experience rests in part on the importance of the emotional labor that GTAs do, which I discuss next.

Emotional Labor in Simulation

To engage in simulation requires agreement between medical students and the "fake patients" that they practice on about what is and isn't authentic or real, as I discussed. **(click)** To make something *feel* real, however, to make the simulation feel as though it matches the real world, requires activity. *Because* GTAs make the encounter safe, comfortable, and non-

threatening, while at the same time allowing medical students to practice the emotional dispositions of medical culture, this simulation works to begin the process of medical socialization. In this way, the inculcation of the medical habitus in medical students depends on the affective labor that GTAs perform.

Sociologist Arlie Hochschild developed the concept of emotional labor to explain work that "requires one to induce or suppress feeling in order to sustain the outward countenance that produces the proper state of mind in others" (2012: 7). Emotional labor requires the worker to manage her own emotions in order to manage to emotions of her clients. Hochschild points out, importantly, that emotional labor requires an estrangement from "an aspect of self […] that is *used* to do the work" (2012: 7). Emotional labor has been used in a number of ways and has recently been expanded to include body labor. Body labor involves the close, personal contact with another's body that is often messy or intimate (Wolkowitz, 2006; Kang, 2010; Underman, 2011). As I discussed above, people who work on and with their bodies develop a number of strategies to manage the intimacy of the encounter. GTAs deal with a special challenge: being both subject and object of the encounter. I have written previously about the distancing technique that GTAs use to navigate the positioning of their bodies as both subjects and objects for teaching: "workers engage in a paradoxical practice that is concurrently pleasurable for them and yet cognizant of the potential for degradation" (Underman, 2011: 448). I called this distancing technique strategic dualism: "using constructions of the body as an object while simultaneously relying on subjective experiences" (Underman, 2011: 445-446). Here, I'd like to review what I meant by this technique and explore how GTAs use it to also create an authentic experience for students in an artificial context.

I wrote about strategic dualism originally as a way that GTAs themselves moved between the objective and subjective knowledges required to teach this type of sensitive examination (Underman, 2011). I wrote about uses of humor, control of touch, and deployment of medical terminology that allowed GTAs to maintain control in the teaching encounter. Because in that paper I was primarily interested in the feminist strategies of teaching in an institution reliant on passive and objectifying discourses of the female body, I focused more on the GTAs' strategies of resistance than their emotional labor. Here, I'd like to suggest that this separation GTAs make is part of the emotional labor of creating authenticity in an artificial context. Because emotional labor is by definition and necessity artificial and not genuine to the worker, and requires a certain amount of separation of the self (Hochschild, 2012), this concept is applicable to the ways in which GTAs make students feel as though they are interacting with a real patient while not themselves being real patients. GTAs maintain this separation while simultaneously presenting themselves as being unthreatening and friendly toward medical students, and even doing the work of making medical students feel safe in this nerve-wracking encounter.

Many of the GTAs described this type of distancing as a strategy for reducing the intimacy of the experience for medical students. Specifically they use third-person language instead of first-person language to create this sort of barrier. For example, they will give instructions about how to do the exam referring to *the* body parts, instead of *their own* ("my") body parts.

> "I know that I've caught myself actually saying, you know, I'm talking third-person or something like that and it seems really weird to me. I think it depersonalizes it for the students, so it becomes easier if they want to have a conversation about something that's very personal with the person that they're actually working with. […] It's not me anymore, it's the cervix." (Gretchen**,** GTA, Sept. 2, 2009)

Even though the GTAs I interviewed are comfortable with the intimacy of the encounter and with using their bodies in this type of educational setting, they recognize that students don't have this level of comfort. This self- and other-objectified experience can be heightened for some of the GTAs when involved in team-teaching.

> Kelly: "What do you think the purpose of that kind of language shift is? […]"
> Sylvia: "I think that it would probably be an effort to kind of reduce any embarrassment […] maybe the person would feel like […] it's less subjective. And it's a more objective experience. Like you don't have to be concerned about embarrassing this person. […] I would feel there were certain people that team-taught […] when I was like in the patient role. And I would feel like the I was being excluded from the conversation between my teaching partner and the student. […] It's definitely true that the student—when you're in the patient role and your partner is in more of the teaching role, the student would talk with her, would talk with the teacher. And […] they would treat the person in the patient role very differently." (Sept. 16, 2009)

It's unclear how medical students perceived this situation, though, as only one medical school in Chicago uses a team-teaching approach and I did not interview their students for reasons discussed in my methods section. For the other schools, medical students all work with GTAs teaching solo, meaning acting as instructor and model simultaneously.

GTAs must constantly shift between their embodied experience of receiving the pelvic exam and an awareness of what the medical student is learning and doing (Underman, 2011).

> "It's kind of like in a way, teaching, there's maybe kind of part of us that steps aside because we have to kind of see things from their [students] point of view […] So it's kind of attributing to us, part of our consciousness and our vocalization, has to kind of be separate from being just in our body." (Gretchen**,** GTA, Sept. 9, 2009)

In addition to this being a form of body labor, it is a form of emotional labor. It requires constant management of the self in order to teach the correct technique (such as, is the student palpating the correct structures), but also to be supportive and patient with the students.

I discussed in Chapter 4 the depoliticization of GTA programs. This is reflected in a shift away from teaching medical students to respect women and toward teaching medical students to reduce their own anxiety. Lena, a director of what may be the only independent teaching program in the Chicagoland area, emphasized many times that she trains and hires her GTAs with an emphasis on the student experience.

> "[W]e're there because we want to improve healthcare […] but I also think we're there for the students. […] I want there to be better healthcare for the patient, but also an important learning activity for the students, to support them and help them learn." (Dec. 14, 2011)

When Lena first took over managing several of the programs that she did, there was resistance to her emphasis on teaching students first and getting "the politics out of the exam room". Lena's program emphasizes giving students the opportunity to practice their communication and manual exam techniques in a safe, supportive environment. In describing the type of person she likes to hire as a GTA, Lena said:

> "I like people who are not—physically aren't going to be intimidating. So I like people who have a nice […] supportive demeanor. Somebody who comes prepared, really knows their stuff, so I do like smart people. […] And the supporting, and the smart thing, to me they just kind of go hand in hand because if the student doesn't—sometimes it would honestly get a little bit argumentative between the teachers and the students."
> Kelly: "Really?"
> Lena: "Yeah […] We have to learn how to work with them because […] if you think they're being snippy, the student might be snippy for a number of different reasons and […] I think we need to try to support them rather than put it to them or whatever." (Dec. 14, 2011)

Lena wasn't the only professional director who emphasized wanting supportive GTAs to teach the pelvic examination. The other directors and the medical faculty I spoke with emphasized the importance of someone who is knowledgeable about the anatomy and the clinical skills but who is also supportive and a good teacher.

It bears mentioning that both in team-teaching and in solo-teaching encounters, GTAs are performing this emotional labor of being nice and supportive to students while simultaneously receiving an invasive physical examination. There is the potential for physical harm and pain to the GTA, which is why she needs techniques to control the encounter like being able to physically stop the student or readjust the student's hand (Underman, 2011). GTAs try not to react or express too much discomfort if a student makes a mistake lest it frighten the student.

This is evident in the kinds of responses medical students gave when I asked their impressions of the GTA they worked with. Students used a variety of loaded emotional learns to describe the emotional labor the GTAs were doing. Almost all of the medical students talked about how comfortable the GTAs made them feel. "[T]hey put an enormous part into making you feel comfortable" (Amber**,** medical student, Jan. 25, 2012). GTAs were "helpful," "nice," "friendly," and put the students at ease. "[T]hey end up being someone you can sort of trust and feel comfortable with" (Roger**,** medical student, Feb. 3, 2012).

This type of emotional labor is what Kapsalis (1997) criticized in her account of working as a GTA in Chicago-area medical schools during the late 1980s and 1990s. She argued that, like Hochschild's work on flight attendants, the GTA is constantly managing her own emotions and the emotions of the student in a calm, kind demeanor. Kapsalis wrote that GTAs are like flight attendants in that, "She is there to make the student's trip through the female body comfortable, safe and enjoyable" (1997: 77). As I have discussed above, the GTA is meant to serve as a simulation for the clinical patient. Thus, while medical students need to practice on real bodies inhabited by the sociality of their patients, the sociality of the GTA is not necessarily the goal. She is *playing* herself, but she cannot *be* herself. She has to learn when and how to deploy her sociality in the teaching encounter, or else the encounter will not be a clinical one.

Kapsalis and others (including myself and some of the GTAs I interviewed) have compared the work that GTAs do to the work that sex workers do. In both contexts, we have a woman in a female body allowing a stranger access to her body while she performs a type of emotional labor to regulate her and that stranger's experience of the encounter. As I have argued, sex work is inherently sexual while the work GTAs do is intentionally desexualized (Underman, 2011), but the emotional labor of balancing between authenticity and artificiality is theoretically similar to what Bernstein has called bounded authenticity (2007). By bounded authenticity, Bernstein means a genuine emotional and physical encounter that is almost bounded in time and emotional depth. GTAs are attempting to create an emotionally resonant simulation of the human interaction of performing a pelvic exam. They attempt to be as authentic as possible so that medical students can have the real experience of examining a real person, with all her messy emotions, elastic tissue, and potential sexuality. However, because of standardization and the very nature of simulation, she is not a real clinic patient. She cannot act like a clinic patient, nor does she want to act like a clinic patient. Her emotional labor is much closer to bounded authenticity: she "sells" a genuine patient encounter without herself being a genuine patient, with all the emotional and physical vulnerability that that entails.

Hochschild (2012) writing on emotional labor and Kang (2010) and Wolkowitz (2006) writing on body labor both point out that these activities are done disproportionately by women. In the medical education setting, I claim that it is no accident that the program that allows students to practice their professionalism by interacting with real humans and their real human thoughts and feelings is staffed by women. GTAs are doing emotional and body labor, but they are also literally doing the emotional work of medical school. Their messy female bodies and

performance of emotions are a workbench on which medical students practice being professional.

Conclusion

In this chapter, I have explored the tensions between artificiality and authenticity in the GTA session. I've claimed that even though the GTA session isn't real, it *feels* real to the medical student, and thus is effective for their socialization process. The GTA session is an example of simulation's everyday ontology, wherein medical students get to try out behaviors and attitudes in a low-risk environment before they must fully adopt them in the real world (Hoffman, 2006). One set of behaviors and attitudes that medical students practice is that of professionalism; by learning to control language, touch, and emotion, medical students move beyond simply rehearsing skills to learning to fully embody the medical habitus. However, in order to rehearse professionalism, medical students need a real person to examine. Because they cannot ethically practice on real patients, they practice instead on GTAs, who put a great deal of emotional labor into maintaining this safe, non-threatening space to "play" at being a doctor.

Thus, the GTA session is important for opening up the black-box of medical school socialization. The kind of pedagogical work that simulation entails is similar to what Wacquant (2006), following Bourdieu (1972), views as part of acquiring the habitus of a new field when one first encounters it. Biomedicine is full of strange attitudes, behaviors, rituals, emotional dispositions, and so on, that a medical student must master *and* fully and unconsciously embody in order to become a doctor. So while simulation itself is not real, the adoption of culture that it instills is real.

VI. NOT JUST BONES, ORGANS, AND SCIENCE

> "[…I]t's kind of like trying to learn how to dance by just watching a video […] it's much easier […] practicing it on a model or a person than reading it in a book." (Daphne**,** medical student, Mar. 26, 2012)
>
> *
>
> "It's not all together easy explaining or breaking down the physical behaviors of palpation […] What does it mean to relax your hand?" (Jill, GTA, Mar. 3, 2009)

Return to my vignette. A medical student walks into a room and meets a GTA in order to learn the pelvic examination for the first time on a living person. The medical student has read about this exam in a book and perhaps watched a video or an experience physician perform the exam. Maybe the medical student has rehearsed parts of the exam on a rubber model or haptic simulator.[23] Yet in spite of all of this knowledge, the medical student does not really know how to perform the pelvic exam. The medical student does not have the *feel* for it.

Learning the pelvic exam is an affect-laden process that requires medical students to confront their own and the patient's emotional experiences. However, in another sense, learning the clinical exam is very much about literally learning how to feel; it is about developing the tactical perception to identify and diagnose disease in organs hidden from visual perception by skin. Unlike other physical exams that medical students learn, the objects of the medical students' attention—cervix, ovaries, and uterus—are enclosed on the inside of the fleshy body of another person. Learning to discern organs, healthy or diseased, relies on learning to "read" one's one bodily sensations appropriately. And yet, while a number of studies have considered how biomedicine remakes patient-bodies into passive objects (Armstrong, 1983; Hirschauer, 1991; Mol, 2002), few studies have considered how biomedicine remakes physician-bodies (Prentice, 2012).

[23] Haptic simulators like the E-Pelvis use electronic sensors to detect the amount of pressure exerted by the user.

In this chapter, I link the inculcation of the medical habitus to the development of embodied habit to understand how medical students learn to perceive their objects of knowledge. I have discussed literature on the habitus at length in previous chapters, but to briefly reiterate, the habitus is acquired unconsciously and which produces thoughts, feelings, actions, and dispositions in subjects that orient them toward the field (Bourdieu, 1977, 2000; Wacquant, 2004, 2014). The habitus accounts for tacit knowledge, which can not be brought up to the level of discourse without being changed. It is "a feel for the game," or an embodied know-how progressively layered into the body and which changes the body hexis, or ways of holding and using the body.

What Bourdieu calls the habitus is somewhat related to what Merleau-Ponty calls habit (Crossley, 2001). For Merleau-Ponty, the body is not merely an object among objects, but the vehicle through which we experience the world (1967). Merleau-Ponty uses the corporeal or body schema to describe a unified sensory locus through which embodied experience of the world produces consciousness. We live *through* our bodies in Merleau-Ponty's phenomenology, and our lived experiences are inextricably tied to the specific moments and places which we inhabit. Habit, then, accounts for the ways in which the body adapts as it "rises towards the world" (Merleau-Ponty, 1967).

> "Habit involves a modification and enlargement of the corporeal schema, an incorporation of new 'principles" of action and know-how that permit new ways of acting and understanding … It is a sediment of past activity that remains alive in the present in the form of the structures of the corporeal schema; shaping perception, conception, deliberation, emotion, and action" (Crossley, 2001: 104).

Crossley argues that Merleau-Ponty's description of how novel actions or experiences become habit in the body contributes to Bourdieu's notion of the habitus by providing an explanatory mechanism for how the habitus is acquired. Bourdieu has notably been critiqued for not

theorizing such a mechanism, though his theory certainly implies one (see Crossley, 2001, for an overview of such critiques). Thus, the acquisition of the habitus occurs through the enlargement and modification of the corporeal schema as bodies act in the world and adapt.

Following this work on how bodies learn to be in the world, I consider how it is that medical students in the GTA session consciously learn about their object of knowledge—the female body—while unconsciously learning to embody the professional culture of medicine. I claim that learning to perform the pelvic exam is an embodied experience that involves two bodies—the GTA's and the medical student's.

Merging Scientific Knowledge and Experience

The increasingly scientific nature of medical knowledge (Starr, 1982; Clarke, et al, 2003; Timmermans and Berg, 2005) means that medical students must master a greater number of courses on anatomy, biology, chemistry, and other so-called hard science disciplines (Prentice, 2012). However, while medical training has become more scientifically rigorous, medical students must still learn the "art" of patient care. During the GTA session, medical students have to learn to merge their anatomical knowledge of the pelvis with the "soft skills" of patient experience, communication, and perceptual awareness. These "soft skills" encompass the tacit knowledge that makes up the medical habitus.

Learning to perform the pelvic exam begins with a large amount of scientific, technical, and anatomical knowledge. In my interviews, I asked medical students how they were prepared to go into the GTA session. While specifics vary by school, in general medical students have a large number of materials about pelvic anatomy and pathology to learn before they perform the exam on the GTA. Medical students typically had to study a textbook such as *A Clinical Manual*

of Gynecology, attend a lecture by a faculty member, watch a video, and read materials explaining the exam from the patient's point of view. One such example is an article by a woman physician, in which she describes the feelings of helplessness and shame that accompany being examined in this way (Magee, 1975). I return to the role of patient experience in the exam at the end of the chapter.

To the uninitiated, medicine is full of strange rituals and unfamiliar actions. The pelvic exam is no different. One of the medical students I interviewed described performing the pelvic exam as a "black box":

> "[…T]here were several students on first day of our surgery rotation who'd never stepped into a surgery. And so if you don't know what the atmosphere of the operating room was like, what you can touch or you can't touch, what's sterile, what's not, how to scrub in, who to talk to, what to tell them, the operating room can be a really scary place and uncomfortable for us students. There's people who do this every day. So this is second nature to them. […] And so that's mysterious for us [medical students] […] In a similar way, I think the gynecological exam is kind of a black box, a thing that you know physicians do and you know you're probably going to have to do it. And I think […] oh, shit! I'm going to have to perform this on someone […]" (Molly**,** medical student, Jan. 28, 2012)

This allusion is fitting when it comes to the pelvic exam.[24] For medical students, watching a resident or physician perform the exam on a patient can make it seem like a black box; all of the details of experiential knowledge, perception and judgment, comfort with the sensitive nature of the exam, and management of uncertainty are hidden inside the body of the experienced physician. The medical habitus is, as Bourdieu described, "history turned into nature" in practice. All of these aspects of the medical habitus seem like second nature because they have been so thoroughly integrated into the experienced physician's embodiment that they have reworked what

[24] This also links to my claim that the physician's body is understudied in medical knowledge-making. Knorr-Cetina argues that the "scientist's body as an information-processing tool is a black-boxed instrument" (1999:99), meaning that the embodiment of the scientist is not considered though it is important to their work.

feels or seems natural.

Embodying the medical habitus becomes, for medical students, a matter of rehearsal, repetition, and learning to adapt to rules that are not always explicit or conscious (Wacquant, 2014; Underman, 2015). Because the habitus involves knowledge that cannot be brought up to the level of discourse without being altered (Bourdieu, 1977), it involves a different set of pedagogical practices than what medical students are used to:

> "I think that med school, the environment, […] the things that we learn are brand-new to many people and there are things that can be uncomfortable or also intimidating procedures and patients, and things you just have to pick up and learn. But it's good to have some experience kind of absorbing things in an unusual context and that can translate into an increased ability to learn those things. […] You get used to book learning for four years of college, and you're not used to learning things experientially." (Ted, medical student, Mar. 27, 2012)

Unlike "book learning" in undergraduate education or in the science courses medical students are required to take, medical school is full of new experiences and pedagogical practices that involve more than cognitive-level skills. Simulated encounters like the GTA session provide such opportunities, as I discussed in Chapter 5.

> "[…] I knew the anatomy and I memorized the phrases everybody was supposed to say and whatnot, but none of that really matters when you're in front of the patient and they're in lithotomy position and you're actually expected to perform. It's a completely different environment […] one that I wasn't ready for." (Basil**,** medical student, Aug. 24, 2012)

For medical students, the GTA session is a concrete reminder that the "game" of medicine involves much more than anatomical knowledge. There is a great deal of cognitive-level knowledge about science and anatomy that medical students have to master, but this alone isn't enough to make them *become* physicians.

It is telling that when I asked medical students what they learned from the GTA session, almost none of them told me that they learned technical skills only. The majority of them

mentioned learning the technical and communication skills (in terms of learning the "right" language discussed in Chapter 5), but spent the most time emphasizing what they learned about interacting with patients.

> "[S]eeing it and doing it are two different things. You can see someone and they are like, 'Yes, do you see what I am doing?' and you are like 'Yeah, I see what you are doing,' but do you know exactly where to put your hands, what kind of pressure to use and things like that? You also don't know what the patient experience is going to be like […] so it's a chance to sort of judge a patient's reaction and the chance to sort of refine your […] skills, make sure that you are putting your hands in the right place and doing the right things […]" (Roger medical student, Feb. 3, 2012)

For medical students, performing the exam on a GTA is about refining technical and communication skills, but it is also about learning how to interact with patients, both learning the patient's experience and learning how to modify one's one technique in response to verbal and nonverbal cues from the patient. As Michelle put it, the GTA session is about learning "dealing with patients not as just like bones and organs and science, but […] learning how to talk to them and sort of attach that interpersonal side" (medical student, Mar. 5, 2012). In this way, medical students learn that their object of knowledge—the patient—isn't merely a passive object, but an embodied person with whom they must interact during the examination. Learning to deal with patients thus involves all of the "soft skills" of the medical habitus that can't be taught from a book, but that must be learned through experience.

Part of the learning experience in the GTA session is adopting the techniques of the body (Mauss, 1973)—what Bourdieu (1977) calls the body hexis—that are required to perform the pelvic exam. As with learning to interact with patients, this requires experience. Medical students told me repeatedly that their anatomical knowledge of the pelvis was either insufficient or didn't solidify until they practiced the exam on the GTA. Basil explained:

> "[Y]ou know the general layout of pelvic anatomy, and you can tell the story of how it

> developed and whatnot, but those relationships, the physical relationships that they emphasize so much and are so important for surgical and clinical manipulation, none of that—you can't appreciate any of that […] from a textbook. […] You can just feel, here are the sizes, here are the appropriate textures, the appropriate pressure points. And, I mean for me, that's when everything kind of clicked." (Medical student, Aug. 24, 2012)

For Basil and other medical students who answered similarly, anatomical knowledge of the pelvis can only take a medical student so far in knowing how to perform the pelvic exam and understanding pelvic anatomy. It isn't until medical students actually perform the exam that the knowledge "clicks". Daphne told me about the videos their class had to watch, but that "it's a lot harder to translate – it's kind of like trying to learn how to dance by just watching a video" (medical student, Mar. 26, 2012). This is why, as I discussed in Chapter 5**,** that it is important for medical students to perform the examination on a living person. Living tissue responds differently than plastic models. In addition, plastic models only include the reproductive organs, not any of the intestines, the bladder, or any of the adipose (fat) tissue that a medical student must examine around to find the reproductive organs. In this way, learning is embodied in that medical students cannot fully understand or appreciate the anatomical information that they are acquiring without literally getting their hands on it—without being able to actually examine a living person and experience those anatomical relationships. In another sense, learning is embodied in that it requires the presence of two bodies: the medical student's and the patient's. Without a real body on which to learn, medical students cannot appreciate and learn about anatomy.

In short, what makes the GTA session valuable to medical students is that it is an experience through which they deliberately learn about the medical habitus. The GTA session shares similarities with the training that Wacquant underwent to become a boxer (2004). It is deliberate pedagogical practice that makes medical students aware of their own attitudes,

dispositions, emotional states, tactical senses, intellectual abilities, and many other capacities of their embodied subjectivities. As Jacob said, "[T]his just teaches you a lot about self-awareness […] what you're doing and what you're thinking about and that sort of stuff" (medical student, Mar. 13, 2013). Through practicing and experience in the GTA session and other simulated patient encounters, medical students intentionally inculcate the medical habitus.

Granted, it may seem like a theoretical stretch to argue that one simple encounter with one type of exam completely remakes the medial student's subjectivity, and that is not exactly what I am arguing. Instead, I am arguing that the GTA session is one step in a long series of similar types of pedagogical practices that contribute to this inculcation of the medical habitus. This highlights an interesting contradiction or tension in the GTA program itself. While the GTA program arose in part from the feminist protest of the Women's Health Movement and reassembled the practice of the pelvic exam with elements of such feminist reforms as I argue in Chapter 4, the GTA session isn't actually all that much about improving healthcare for female-bodied patients. It is about student experience. Many of the medical students I interviewed returned at several points during our conversation to the idea that simply getting experience working with patients (real or simulated) was what was important about working with the GTAs.

> "I mean in the really broad sense it sort of gave me a peek into all of the stuff that go into a medical education […] show you what's going into it and everything that they're trying to shape you as a doctor, rather than just speak to you […]something is completely different [about] actually like spend a lot of time […] physically feeling what goes into that kind of thing" (Jacob**,** medical student, Mar. 13, 2012)

For Jacob and other students who answered similarly, while the GTA session is ostensibly about clinical skills for the pelvic exam, it is also about "shap[ing] you as a doctor". It is one stage among many that seeks to transform medical students' embodiment (Prentice, 2012) to acquire the medical habitus.

While medical students are learning a great deal of technical, anatomical, and scientific knowledge about the human body and, in particular, the female pelvis, in preparation for the GTA session, what they gain from it is the *experience* of doing it, of mastering a strange new skill, and being comfortable doing so. They learn to embody techniques which are black-boxed in the practicing physician's body and which are crucial to encountering a variety of patients and situations within which medical students will have to work. They continue the process of inculcating the medical habitus through deliberate pedagogical practice. I will return to the ways in which medical students learn to perceive the body in the GTA encounter, but first I will explain the embodied knowledge that GTAs bring into the encounter and how they use it to teach.

The Habituated Body

GTAs are effective in teaching the pelvic exam because of their highly detailed level of familiarity with their own bodies. In article on the embodied labor of GTAs, I argued that GTAs use their embodied experiential knowledge to produce a legitimated form of knowledge in biomedicine (Underman, 2011). The GTAs I interviewed expressed knowing with a high level of detail their own bodies and bodily sensations. They are able to tell from bodily sensation whether the proper organs are being palpated, the placement of the speculum, and so forth. They develop this knowledge over the course of many experiences receiving the pelvic exam. As I discussed in Chapter 4 and elsewhere**,** part of the original program involved GTAs having multiple exams in order to develop this stock of knowledge (Underman, 2011). According to GTA, Sylvia, "[i]t's knowledge gained from experience, gained from experience of having [laughs] having lots and lots and lots of exams" (Underman, 2011: 339). For example, one of the GTAs I interviewed,

Beth, estimated that she had experienced over 1,000 pelvic exams in her life.[25]

> "I can give accurate feedback on, is that my ovary, how far do you need to move your fingers this way or that way to be able to palpate my uterus, things like that. I am absolutely an expert on how to do this exam on my body" (Underman, 2011: 339).

I went on to argue that GTAs maintain a strategic dualism in relationship to their bodies as objects and producers of knowledge. In that article, I focused more on the labor practices of GTAs, framed in through the body labor literature (Wolkowitz, 2006). Here, explore in greater detail the development and use of embodied experiential knowledge in the GTA session. I show that GTAs' bodies are habituated: they have developed embodied habit through their training and teaching that allows them to teach medical students about pelvic anatomy.

The GTAs and the professional directors that I interviewed all stressed the importance of a combination training experience, which combined teaching anatomy and pathology with rehearsing the exam itself. Lena owns a company that contracts out GTAs, male genitourinary teaching associates, and standardized patients to medical schools. In Lena's program, GTAs both experience the exam on their own bodies and have to perform the exam on each other in order to be considered fully trained. At other programs in Chicago and across the country, GTAs go through multiple sessions learning how it feels to have a proper exam before they are able to teach. Thus, this embodied experiential knowledge isn't something that GTAs come into the teaching session for the first time equipped with. While they have some level of familiarity and comfort with their own bodies, they have to learn new ways of experiencing their bodies in a

[25] I suspect that this estimate, for the average GTA in Chicago, is probably low. Beth was working in a program that intentionally limited the number of times a GTA could have an exam per week to four. That means that she could have up to two hundred pelvic exams in a year. In Chicago, there are no such limitations. During a busy semester, a GTA might have as many as twelve pelvic exams in a single day. I have no reason to believe that the quality or depth of embodied experiential knowledge in one would be more developed than in that other. I only want to note that GTAs' embodied experiential knowledge of having the pelvic exam is based on a *much* higher frequency of examination than an average female's would be (who might get one a year, if that).

medical setting. Training involves learning to pair particular sensations with particular medical techniques, which a female-bodied person would typically only encounter during a clinical exam.[26] Over the course of weeks and years of experience, GTAs' corporeal schemas are modified to incorporate the tools and techniques of the exam.

It is this extremely detailed knowledge of their own bodies that makes them valuable as educators. The medical students I spoke with expressed a great deal of appreciation for being taught by someone who could correct them. Many of them told me that their biggest fear was hurting a patient, so they appreciated having someone who could stop them and correct them before they might cause discomfort. In addition, they appreciated having someone who knew the anatomy and could tell them whether or not they were palpating it.

> "I could be doing the prostate exam. You [can't] ask the actual patient like, is this your prostate that I am touching, because A) they might not know and B) it might make them feel uncomfortable that you have just no experience. So with a standardized patient they know exactly what you are pressing on because they have done this before they know their anatomy so they can answer questions like that." (Roger, medical student, Feb. 3, 2012)

Even though this student is talking about performing the prostate exam, the experience of working with a GTA is similar, according to my interviews.

> "So for instance they can feel […] how far your speculum is inserted during an exam into the vagina canal. And they'll be able to tell you adjust that in or out so you get to the right spot where they think in their experience you'll be able to perform the exam better […to…] observe the cervix and […] because it's on their body, and they can sort of sense these sorts of things, the communication from them is a valuable teaching tool in terms of kind of doing the exam properly." (Ellie**,** medical student, Apr. 5, 2012)

This was just one of many typical responses about the value of working with GTAs. Medical

[26] For example, medical students often have a difficult time identifying ovaries. It is a persistent problem in the pelvic exam at any level of medical practice, as ovaries are very small and not fixed in the pelvis. GTAs have to learn to identify a particular twinge or sensation *and* link it to being produced by palpating the ovary.

students affirmed what GTAs told me about the GTAs' detailed level of knowledge and its importance for teaching the pelvic exam. The remaking of the GTAs' bodily habit through their extensive training and repetitive experiences of receiving the pelvic exam allows them to teach medical students by adjusting their technique.

Habit is developed in relationship to social context, as Merleau-Ponty (1967) and Bourdieu (1977) argue. It is a modification of the body's perception and it aligns the body with the field. For GTAs, their bodily habit is modified within medicine.

> "[T]his is a *professional* who knows more than anybody on exactly how things feel and they can kind of tell how you're doing because they're informed about their own bodies […] and have also been *professionally* trained on the techniques and other things for this exam." (Ellie, medical student, Apr. 5, 2012, emphasis added)

GTAs learn anatomical terms and develop bodily habit over years of experience in order to teach about a medical exam in a medical setting.

> "[There GTAs were] very knowledgeable. They would use the technical words that we knew from our books […] They are experts. They know all their parts. […] When I did the speculum [exam], one lady was like, okay, […] my cervix is it more in the middle […]some days it's here and some days it's there. So they really know the anatomy and because they […] know what they're feeling […] what if I was looking at something that I felt was a cervix and it really wasn't? A normal person wouldn't know that. They know what you're looking at and they just kind of know their own bodies. (Kathleen, medical student, Mar. 7, 2012)

The GTAs know the anatomical terms and relationships, which make them able to communicate with medical students. I argued previously (Underman, 2011) that GTAs' knowledge of the anatomy is a way to earn students' respect and maintain control in the encounter. According the medical students I interviewed, it also allows them to work within the terminology and scientific knowledge of the pelvis while simultaneously learning to perceive the relationships of the organs through experience.

The above quote from Kathleen demonstrates the role of this medical bodily habit in a clear way. Some medical students struggle with locating the cervix during the speculum exam. During insertion of the speculum, it can be very easy for a novice to "miss" the cervix and assume that a portion of the vaginal wall is the cervix. Similarly, during the bimanual exam, medical students often struggle with palpating the cervix (in part because it is much smaller than it appears in the speculum, which is an important issue for translation of perception between visual and tactical modalities). Having GTAs trained in the experience of receiving the pelvic exam means that GTAs can assist medical students in locating the cervix visually in the speculum or tactically in the bimanual exam. Since speculums and direct manipulation of the cervix are not things most people engage with in their daily lives, the embodied habit a GTA builds up depends on the tools, techniques, and setting of medicine.

GTAs help medical students merge their technical and anatomical knowledge with the experience of performing the exam on a living body using embodied habit. They provide a living link between the subjective experience of the exam and the object of knowledge on which the exam is being performed (Underman, 2011).

> "[T]he [GTA] is your teacher and patient […] these teachers are able to tell you exactly how they feel about the exam as you're doing it because it's on them. So that's a level of communication you would not get if you had, let's say a standardized patient who was unaware of the technical aspects of it and you're in there with a physician and a physician was teaching you the exam on somebody else. You'd be missing that communication which is sort of the interface of the technical aspects and the personal aspects of the patient […] that's probably the most powerful thing of the whole aspect. (Ellie, medical student, Apr. 5, 2012)

Using the technoscience language of "interface," Ellie explains that the communication is the link between the manual skills of the examination and what the patient is experiencing. The GTA being able to feel and *communicate* what she is feeling is the interface. She is trained and knows

her body, unlike a clinical patient or standardized patient. But in order to communicate (interface), she must translate her experience into something that is comprehensible to medical students.

Thus, over tears of experience and repetition, GTAs learn to know by feel whether or not the exam is being performed correctly and they learn how to use this embodied habit to teach medical students the exam. The repetition of receiving the pelvic exam modifies the GTAs' perceptual capacities and reworks their corporeal schemas in order to incorporate the tools and techniques of medicine. GTAs have habituated bodies. They have learned to feel differently in a medical context. In the next section, I describe how GTAs use their embodied experiential knowledge to guide medical students through the process of gaining their own.

Learning to Perceive the Body

As I discussed in the previous section, GTAs use their embodied experiential knowledge in order to coach medical students about correct techniques and finding the correct organs. However, GTAs also teach medical students how to use their bodies to perceive the bodies of others. In his essay bridging Merleau-Ponty and Bourdieu, Csordas presents the concept of somatic modes of attention: "culturally elaborated ways of attending to and with one's body in surroundings that include the embodied presence of others" (1993: 138). Csordas draws from Merleau-Ponty's work on perception, arguing that we form objects by focusing our awareness on them; this is what Csordas means by attention. Csordas claims that we attend *to* our bodies by focusing our attention on them to make them objects and that we attend *with* our bodies by perceiving through our senses, following Merleau-Ponty's formation of consciousness as being rooted in the body. Somatic modes of attention are always culturally embedded. "Attention to a bodily sensation can thus become a mode of attending to the intersubjective milieu that give rise

to that sensation" (Csordas, 1993: 138). We attend to (meaning, focus our embodied attention on) the bodily form and bodily movement of others. Csordas alludes to the idea, following Mauss (1973) on techniques of the body, that in order to develop new techniques of the body, we must first focus on our bodies and after that our awareness fades as the technique becomes natural to us.

Following Csordas's development of somatic modes of attention as a culturally-informed, intersubjective means of perceiving our own and others' bodies, and building upon Crossley's (2001) reading of Merleau-Ponty's habit and Bourdieu's the habitus, I show in this section how, for medical students, becoming aware of their own bodies is the first step in being able to attend to and perceive the bodies of their patients. In doing so, I claim that embodying the habitus of a previously unfamiliar field requires becoming aware of one's own sensory and embodied experience in order to develop the stock of bodily knowledge that will become seemingly natural to the body once those techniques have been fully learned.

Learning clinical examination skills in medical school requires the medical student to learn how to discern information about the patient-body in ways that are unfamiliar and not present in other aspects of daily life. The pelvic exam requires learning to differentiate reproductive anatomy from other internal anatomy by touch only, which is much more difficult than it may seem from studying an anatomical textbook. The GTAs I spoke with frequently described palpating the internal organs as subtle or delicate. Medical students gave responses typical to this one:

> "I've never felt a uterus before […] you're palpating on the stomach, you're trying to like feel through all the skin, all the stuff on top, trying to feel those different organs. Then you have the idea of what, where things are and how they feel and how it is to feel them." (Stephanie, medical student, Mar. 7, 2012)

This quote reflects the process of learning how to perceive the organs within the pelvis as objects of attention. Medical students may have felt their own or another's abdominal cavity before, but not with the clinical intention of locating and assessing the female reproductive anatomy. GTAs train medical students how to feel through the tissues, organs, muscles, bones, and flesh of the pelvis to locate, find, and *make an object of attention* out of the cervix, uterus, and ovaries.

GTAs do this with explicit verbal instruction and by physically guiding the medical student's hands, as I discussed in the section above. By guiding a medical student's hand more to the left to find the ovary or by encouraging a medical student to apply more pressure to insert the speculum, GTAs are training medical students how to use their bodies—their tactical senses—to perceive these organs. With time, repetition, and a great deal of practice, what is overt and explicit in the GTA session will become an embodied technique for the medical student.

Through training and experience, GTAs develop skills to draw attention to medical students' sensory experiences during the pelvic exam. Jill, a GTA, was training to become an acupuncturist at the time of our interview, which is another occupation that requires close contact with another's body and close attention to one' own and others' bodily states (Underman, 2011). She provided one of the most interesting and detailed descriptions of teaching medical students about palpation, which I heard similar reflections of from other GTAs.

> "It's not all together easy explaining or breaking down the physical behaviors of palpation and they're not inherently self-evident to people, either. […] And I think one of my primary strategies […] is the stuff around breaking down the physical behaviors of palpation. What does it mean to relax your hand? And being able to offer different physical sensations that equate a relaxed hand. Making your hand heavy. Can you make your whole arm heavy, starting at the shoulder, all the way through your hand? Think of your hand as floating. Can you make your hand soft? […] So breaking it down into the sensations that they can feel in their own body helps them relate to how to go about doing what I'm asking them to accomplish." (Jill, GTA, Mar. 3, 2009)

As this quote demonstrates, Jill very explicitly makes the pelvic exam about training medical

students in somatic modes of attention. By asking medical students to reflect on how their hands feel as they do the movements or to relax their muscles, Jill is directing the medical students' attention to their own bodily states in order to allow them to develop the means of perceiving another person's body. She makes perception about a reciprocal link between the experience of one's own body and the experience of touch with another body (the object of study). She opens up the black box and makes the work of a pelvic exam as much about learning what a uterus or cervix, et cetera, feels like, but also what the medical students' own body feels like. This represents both attending *to* the body, in this case the body of the patient, and attending *with* the body by focusing on what the medical students feels in his or her own body. In time and with proper practice, these skills become techniques of the body that fade from deliberate awareness.

Part of this work is linked to the nervousness and anxiety that medical students experience going into the pelvic exam. A number of GTAs told me that they often have to make medical students pause and relax before moving forward. During the bimanual exam, for example, which requires bending the wrist inward at an angle that can be uncomfortable for the untrained, medical students will tense up through their arms, shoulders, and backs, so that their hunched and cramped positions prevent them from performing a proper exam. GTAs encourage medical students to think about the posture of their entire bodies, not just the position of their hand, making the pelvic exam about a mode of attention that encompasses the whole body. In time and with enough practice, medical students will embody this relaxed disposition and means of perception without being aware of what they are doing.

Another example of how GTAs teach medical students to attend to somatic experience is slightly different. It illustrates that to become aware of one's body in relationship to the patient does not always require physical contact. At one of the medical schools, GTAs invite one of the

medical students to assume the lithotomoy position, which is lying on the exam body in a reclined position with feet in the stirrups. Originally, GTAs invited all of the men (on the assumption that they would not have had a pelvic exam) to assume the position. However, that was slightly controversial, and now GTAs only ask for one volunteer. The GTA then asks the volunteer to narrate to the other students how it feels to be in the position. This is a somatic mode of attention, but it is one that doesn't involve direct physical contact. In fact, it is another strategy, such as I discuss in Chapter 5, that attends to the affective disposition of the medical student.

> "Oh, sometimes they [GTAs] would put the men in the lithotomy position. This was a controversial thing. […] So they would ask, 'Has anybody not been in the lithotomy position before?' And obviously, the men hadn't been in it. So they invited the men to sit in the chair with their legs up and their bottom close to the edge of the table just so they could see how it felt and how powerless it was so it could help them better relate to the patient. And some men really thought that was kind of neat, and others hated it. […] I thought it was a great idea. But that's because I'm a woman, and I think, yeah, they need to see what we're going through as a male doctor. Not just diving in there and doing what they got to do without giving much thought to the other side." (Heather, professional director, Jan. 27, 2012)

Thus, the intention was to give medical students who might not have otherwise been in the lithotomy position the opportunity to experience what that position feels like. This practice arose at this particular medical school out of feminist self-help ethics of practice during the 1970s and 1980s. Feminists were concerned that medical students were learning implicitly that women should be made to feel vulnerable during their first encounter with the pelvic exam, as I discussed in Ch 4. This technique was intended to give them the opportunity to experience lithotomy position for themselves and to know how innately powerless it can feel for some people.

However, it was a controversial part of the session and had to be approached with care in

order to send the right message.

> "[…B]efore we had the medical students do the exam, we had all of the males get up in the lithotomy position. And we did it very delicately because I didn't want it to be the message, 'Oh, we're doing this to get back at you and to laugh at you,' but to see how you feel lying down on an exam table with your feet in the footrests and having somebody stand over you. And then we always had […] the first brave male […] we kept them flat on their back with the drape over their knees and […] the examiner sit down at the end of the table and like rattle speculums […] versus having the back of the table up and having […] some eye contact […] so you could actually see the person at the foot of the table." (Martha, professional director, Apr. 20, 2009)

The intention, as Martha explains, was about experience and empathy, not about "getting back" at medical students for what feminists might perceive as the sins of biomedicine. Instead, the intention was to have medical students experience both types of practice—old and new, as discussed in Chapter 4—in order to understand the perceptual modalities of each. In her essay on phenomenology and the pelvic exam, Young (1997) argues that the exam consists of distinct modalities that divide up the examinee's perception. Drapes delimit visual perception, for example, splitting the patient's body into two regions of awareness. Showing the medical student on the table both sitting up and lying down, with and without eye contact and draping, the disembodied sounds of the instruments, underscores the patient's embodied experience and perception of the exam.

> "I know it was effective because somebody once told me that on Oprah, there was a […] segment where women were talking to gynecologists and talking about, 'Oh, you can't possibly understand what it's like to be up in that position,' and one of the gynecologists said, 'No, wait a minute, I went to [name of medical school] and they made us get in that position when [laughing] we were learning about the exam.'" (Martha, professional director, Apr. 20, 2009)

The intention, then, was to develop an embodied experience of the pelvic exam—anxiety, powerlessness, physical vulnerable and discomfort—that the medical student could recall and draw on when in working with patients.

This technique is useful for both the individual medical student who assumes the position and the other medical students, who learn from his or her experience.

> "And they had one person volunteer to get on the table [… to] feel sort of how you feel a little bit vulnerable sitting there. […] And so, I think it was a worthwhile exercise just kind of to like put yourself, even with your clothes on, sort of in that physical position, so you know how it feels, a little bit vulnerable to have your legs open and have a stranger kind of have reassure you […] I think it helps you be a little bit more sensitive to how the patient might be feeling […] seeing my classmate […] go up there like reminded me of the times that I've had the pelvic exam and I think it was a little bit useful to be like, oh, okay, remember what that feels like. It does feel a little bit vulnerable and let's be conscious of that as we begin learning how to do this exam." (Carolina**,** medical student, Feb. 18, 2013)

The medical student on the table would also narrate the experience to his or her colleagues, at the GTA's prompting. This quote demonstrates two things. First, that even medical students who have had the pelvic exam may need prompting to connect their own experiences with the patient's experience when performing the pelvic exam for the first time. Second, it demonstrates the use of experience as a type of evidence in collective learning experiences (Murphy, 2012). While medical students can certainly draw from their own embodied perceptions to develop empathy with the patient, they don't necessarily have to if they are participating in a group process with collectively produces experience. Experience is thus both an individual asset and a stock of knowledge produced in collective encounters that individuals can selectively draw from.

This technique links perception to affect in a concrete way and demonstrates how this process is an affective entanglement. Affective entanglements "refer to the reiterative affective and sensory link between scientists and their objects of study" (Murphy, 2012). Medical students' modes of attention to their own bodies are entangled with the affective stance they take. Empathizing with the patient and feeling what the patient feels cultivates a certain style of practice. It makes the embodied experience of being on the table a resource for the medical

student to draw on when performing the pelvic exam. It encourages the medical students to reflect on their own experiences of anxiety, helplessness, and fear in order to alter the techniques of the body that they will later use with patients. As I will show at the end, this also shapes the subject-figure of the patient that is produced in the GTA session.

The link between a first experience of learning how to palpate the pelvic structures and later techniques of the body is evident in the move toward nonhuman simulation. Some medical schools have adopted the use of haptic pelvic simulators, which are plastic models with inbuilt sensors to measure pressure (Epstein, 2010). Often times, this is a response to budget cuts, as haptic simulators tend to be more cost-effective than GTAs in the long run. However, there is a trade-off between cost and the style of practice that the medical student will develop. Haptic pelvic simulators emphasize the technical-manual skills of performing the pelvic exam, but do not allow for learning "the feel" of it (Johnson, 2008; Prentice, 2012). Prentice argues that such simulators abstract the technical from the experiential or subjective skill of clinical and surgical work and questions whether such technologies will result in a different form of practice (2012). According to my interviews, they do. Medical faculty spoke of simulators as a first step to learn the technical-manual skill of the exam and to learn the gestures, hand positions, and locations of organs. None of the medical faculty viewed them as replacements for GTAs, though, for all of the reasons I discussed in Chapter 4. GTAs themselves noticed that the practice tended to be different in medical students who had learned with haptic simulators.

> "They [the medical school] brought in these sort of like plastic models that had electronic gadgets that when the student touched the model ovary or the cervix, it would let them know […] that the students would come in and work with those first and then they would come and do an exam. I noticed that what seemed to happen is that they would know more about […] where to locate things, but they would press really hard because they had to get whatever the indicator was that they were in the right location." (Vivian, GTA, Sept. 16, 2009)

A few other GTAs that I spoke with indicated similar changes to the medical students' practice based on working with pelvic simulators. Medical students would press harder or would palpate in ways that were uncomfortable. The pelvic simulator is goal-oriented: find the cervix, the ovaries, and so forth. The ones used in these GTA programs didn't have negative sensors, so to speak; nothing would light up or buzz if the medical student, say, compressed the urethra between the speculum and the pelvic bone in a way that would cause pain to a living body. As I discussed in Chapter 5, living tissue simply feels different. It requires more subtle palpation techniques. It requires a somatic mode of attention to what one is feeling in one's own body to understand another's body. The pelvic simulator, by nature of its design, alters the sensations in a trainee's body that are necessary for doing a comfortable exam.

What this example of the difference between haptic simulator and the GTA's body demonstrates is that in order to develop techniques of the body, medical students need to experience a pedagogical emphasis on somatic modes of attention. Either explicitly or implicitly, medical students need to learn how to focus on their own sensory and bodily experiences in order to be able to successfully locate and make an object of attention out of the organs of the pelvis without causing pain to the patient. A medical student must intentionally become aware of her own body in relationship to the body of the patient, and, more importantly, to perform a successful pelvic exam, she must learn to shift between the sensations in her own body and what she feels in the patient-body. It is important for clinical practice to learn how to manage this shift because "reading" disease in the body is about building up enough knowledge about what feels "normal" in order to know what isn't normal.

By training medical students to focus on their own bodily experiences, GTAs intentionally develop somatic modes of attention in medical students. This teaches medical

students to focus their own sensory and embodied experiences in order to locate the organs in the pelvis. Perception is therefore about attending *to* and *with* the body in order to make the reproductive organs into objects of attention during the pelvic exam (Csordas, 1993). Making medical students aware of their own bodily experiences—training in somatic modes of attention—is a crucial part of the pedagogical work of remaking medical students' embodiment and subjectivity.

Patient-Centered Medicine, Neoliberalism, and the Altered Terrain of Biomedicine

So far in this chapter, I have been concerned with the development of bodily habit as part of the process of inculcating the medical habitus. This acquisition of habit aligns the body of the physician with the field of medicine. I have suggested that medical students learn about patients during the GTA session. Here, I consider more fully the role of patient experience in this exam and its link to clinical practice.

The feminist activists of the Women's Health Movement were critical of the ways in which medical students learned the pelvic examination prior to the development of GTA programs.

> "By using anesthetized women, cadavers, or plastic models as pelvic exam subjects students are being taught that a model patient (or patient model) is one who is essentially unconscious or backstage to the performance of the pelvic exam; she should be numb to the exam, providing no feedback and offering no opinions […] passive and powerless female patients are considered ideal 'participants' in the learning process. In addition, students practicing on essentially silent and lifeless models are learning that the manual skills associated with completing a pelvic exam are more important than the fundamental skills needed to interact with the patient […]." (Kapsalis, 1997)

According to these activists, medical students learned more than just procedural skills; they learned powerful lessons about women's bodies, which reflected dominant messages about

gender[27] and heterosexuality.[28] The feminist protest that reassembled the pelvic exam during the 1970s and 1980s challenged these overtly sexist practices. And yet, medical students are still learning powerful messages about patients when they learn the pelvic exam.

> "[…C]ombining the mechanics, the physical exam skills, with the interpersonal communication skills, I think it'll make […medical students into physicians who are] more aware of the communication side of medicine and dealing with patients not as just like bones and organs and science […] they're really learning how to talk to them [patients] […]. So I think it'll be good for increasing professionalism and [making] more approachable, easy to talk to physicians." (Michelle, medical student, Mar. 5, 2012)

Patients are no longer passive objects for the medical students' use. Instead, GTA sessions are designed to teach medical students that patients are more than "bones, organs, and science" – they are, as I heard over and over again, from all three groups of stakeholders, *partners*. So, regardless of configuration and the degree of influence of overt sexism, the pelvic exam as taught in medical school still provides many explicit and implicit lessons about patients that will shape medical students' attitudes, actions, and dispositions as they enter clinical practice.

In this section, I consider this production of the patient as a partner, rather than as a passive object, and its consequences for the medical habitus. I use the concept of materialization, following Judith Butler (1993) and other scholars who have built on her work (Barad, 2007; Murphy, 2006, 2012; Waidzunas and Epstein, 2015), to capture the *processes* by which the body is imbued with meaning. Bodies can only be understood—bodies are only intelligible, bodies only *matter*—in relationship to the structural effects of their existence. In Butler's work, for example, sex (as in, male and female) is a material effect of gender, forcibly produced and

---

[27] In the 1970s, a woman medical student wrote: "Coupled with these slights to female patients in medical-school teaching of information and skills are the attitudes and assumptions about 'woman's place' that color the doctor–patient relation […] One lecturer said, 'The only significant difference between a woman and a cow is that a cow has more spigots.'" (Howell, 1974)

[28] Kline's (2010) history of the routine pelvic exam demonstrates these links. In the immediate post-WWII period, young unmarried women were encouraged to go get a pelvic exam so that the (man) doctor could "gently" instruct her about heterosexual penetrative sex.

reproduced through medical discourse and surgery, through stylizations of the body, and through ways of identifying ourselves. Murphy (2006) builds on Butler's work by focusing on how material arrangements produce kinds of bodies. In Karen Barad's (2007) work, she critiques Butler for making materiality too much of a passive recipient of discourse. Instead, in her theoretical framework, materiality and discourse *intra*-act, or mutually co-produce one another.[29] "Bodies are not objects with inherent boundaries and properties; they are material-discursive phenomena" (Barad, 2007: 153). In this way, bodies are made—they come to *matter*—through the discourses that produce them.

Many connections can and have been made between Bourdieu's habitus and Butler's performativity (McNay, 2000; Sullivan, 2001). Butler herself finds commonality in that both concepts are concerned with understanding how bodily acts produce and are produced by social forces:

> "Interpellations that 'hail' a subject into being, that is, social performatives that are ritualized and sedimented through time, are central to the very process of subject-formation as well as the embodied, participatory *habitus*" (Butler, 1997: 153).

According to Butler, the habitus "constitutes a tacit form of performativity, a citational chain lived and believed at the level of the body" (1997: 155). Butler sees both her theory of performativity and Bourdieu's *habitus* as constituting a kind of embodied know-how that fits individuals into the social and discursive positions that they occupy *and* forms them into different kinds of subjects. However, Butler is critical of Bourdieu because she says his notion of the habitus as only accounting for stability and not agency. She claims that performativity is inherently unstable because it is an endless mimicking of the ideal. There is always something

[29] Barad uses the term *intra*-action rather than *inter*action to account for how the boundary between subjects ("agents of observation") and objects ("objects of observation") is a production of the encounter (or "phenomenon").

about the body that escapes the effects of power to render it intelligible. In this way, Bourdieu cannot account for agency and what Butler calls unsanctioned uses of the habitus, meaning uses of the habitus that disrupt power. In this way, the habitus can be thought of as a "sedimented history of the performative" (Butler, 1997: 159) – in that the mimicking of norms remakes bodily habit and subjectivity (Sullivan, 2001). Applying Butler's critique here allows for a consideration of how the medical habitus can and does change over time and with the emergence of new discursive formations.[30]

Patient-centered medicine is a new type of discourse that has emerged alongside GTA programs and has become entangled with their early feminist projects. Starting in the late 1980s and early 1990s, physicians and medical educators began talking about "patient-centered medicine," a new approach that shifts medical practice toward focusing on the patient's experience in medicine. Under this discourse, the patient isn't just a passive object and/or docile body upon which the physician deploys his expert knowledge, but an active figure engaging with the physician. I suggest that this is a new way of materializing patient bodies and subjectivities in the exam. While I suggest that patient-centered medicine represents a shift in the field of biomedicine, it is beyond the scope of this chapter to interrogate the motivations for making this move. Likely it is related to the larger trend of biomedicalization (Clarke, et al, 2005), in which the entire relationship between physicians and patients has flattened out as biomedical knowledge becomes more widely available, patients are encouraged to become more active consumers of healthcare, and physicians become more like service providers than the authoritarian scientific experts of the immediate post-WWII period.

[30] Though I do not explore this here, I am interested in exploring the role of affect in destabilizing and altering the habitus, since affect can be thought of as a bodily intensity outside the realm of discourse (Deleuze and Guattari, 1987). In Gould's (2009) work, for example, affective experiences resist and reshape the emotional habitus of a social movement.

Patient-centered medicine is sometimes contrasted with evidence-based medicine as being in a "separate world" because the latter is "disease-centered" (Bensing, 2000).

> "Patient-centered medicine in this interpretation means that health care providers must be directed to the illness, rather than to the disease, and have to explore patients' needs from a biopsychosocial model, in which psychological, and social elements are valued as important as the biomedical elements" (Bensing, 2000: 21).

Medical sociologists will be familiar with the distinction between "illness" and "disease" (Mol, 2002): disease refers to the biological processes going on in the body while illness refers to the experience of living with these biological processes. Patient-centered approaches in medicine generally emphasize foregrounding the illness experience and the psychological needs of the patient. While it has been discussed in the medical literature as "human values" or "patient-centered medicine" since at least the 1960s, there has been a burgeoning interest in since the early 1990s—which, again, links patient-centered medicine to biomedicalization.

Medical students, especially at one of the medical schools, are aware of this historical shift toward patient-centered medicine. One of the medical schools emphasized, as part of its "core competencies," patient-centered medicine and attention to the patient experience. Their first-year courses are designed to emphasize these principles in interesting ways. Stephanie gave a typical response:

> "I think that there's a lot more focus on patient autonomy, patients making their own decisions, giving patients freedom. And there's possibly a lot more respect for patients that has happened more recently in the medical community. And there's a lot more where like you can ask a patient, 'What do you want to do, here are the options, what do you want,' instead of just telling the patient what they should do." (Medical student, Mar. 7, 2012)

While all the students I spoke with voiced an awareness of the patient perspective and this shift in biomedical discourse, those from one school in particular gave almost the same answer, word

for word, which I also heard from the faculty member in charge of their clinical skills education. There has been a shift away from "paternalistic medicine" to "patient-centered medicine," according to these medical students. While I argue a similar point in Chapter 4 about the shift in ethical culture in biomedicine, it was interesting to hear this from the medical students and faculty themselves. I take this as evidence of a more reflexive culture, in and of itself—at least among medical educationists, who have a history being more reflexive about teaching and learning in medical school. And yet this evidence of a more reflexive culture shouldn't be taken as evidence that biomedicine is truly patient-centered or concerned with illnesses rather than disease.

The GTA program is framed as part of this trend in medicine because of its emphasis on using active, trained laypeople instead of clinic patients.

> Kelly: "How […] much of an effect do you think this [program] has had on the medical profession and on women's experiences with getting gynecological exams?"
> Heather**:** "I think it's the best thing they've done. I mean, from what I've been told […] before they used this technique they would examine on unconscious patients in the surgery suite. […] But, you know, that's how some people learned. And other faculty have said to me, that's how I learned. Older people, you know, more senior faculty. Which I think is kind of sad because you learn and you don't appreciate the person that you're examining. I mean, they probably learned that later. But the first few times they have to do it on a live person, I'm sure they're awkward. But I think it [the GTA session] just helps you solidify the humanism piece of medicine." (Professional director, Jan. 27, 2012)

The medical student learns to appreciate the individual he or she is examining in this model, but also learns to value patient experience in general:

> "I think we utilize GTAs now to do assessments as well as teaching, and I think that that's really an important educational advance. […] I think the whole notion of teaching an exam from a patient perspective was mightily important and, uh, to some extent, that it retained today." (Rebecca**,** physician, Dec. 12, 2011)

This shift in biomedical discourse, according to Rebecca, Heather, and those who voiced similar

opinions, has led to a change in how medical students learn the pelvic exam. By learning on an active volunteer, instead of a passive patient, medical students learn to "appreciate the person" they are examining, which "solidifies the humanism" component of medical practice.

> Kelly: "How do you think that this increased emphasis on that kind of patient experience feedback is ultimately going to affect your medical students when they go out and start their clinical practice?"
> Dr. Leslie**:** "I mean, I think ultimately it's going to make them better and I think more prepared to be able to serve [that] situation when they're in that. […] In no way would I imagine that having done two or three precepted pelvic exams makes them ready to do them by themselves for the rest of their lives. […] But I also think that the approach that we take makes it very much the patient centered experience and that we constantly kind of remind the students […] how do we make the patient more comfortable, what strategies can you do to make the patient more at ease and I think that having that kind of mindset makes the student much more prepared to sort of approach the patient in a way that is – have empathy […] I think it makes them a little more open to what the patient experience really is." (Medical faculty, Mar. 26, 2012)

Going through the GTA session doesn't make medical students experts in the pelvic exam, nor does it fully prepare them to practice on their own. Yet, according to medical faculty and professional directors, it is valuable because it allows medical students to learn to appreciate the patient experience. This is similar to the argument I make in Chapter 4: the importance of the GTA program is to develop an ethical and affective stance toward patients**.** This goal of the GTA session links up with the shift in medicine toward patient-centered medicine and an appreciation of patients' subjectivities in practice.

This represents a clear shift in the formation of the medical habitus. By using trained laypeople to teach the pelvic exam, the GTA session implicitly teaches medical students that their patient's perspective is valuable and that the patient might have something to offer.

> "There has been a trend [… to change] doctors that are sort of knowing everything to sort of treat[ing] the patients first and respecting the patient more. So if anything I think that this [the GTA program] sort of helps us—the students—sort of be more sensitive, understanding in practice, before [we] actually examine a real patient. So if anything I think that shows respect for the patients that you don't want students sort of fumbling

> around on a patient before they've had the chance to practice. So I think it is going along the line of just having like personal respect for and consideration for patients." (Roger**,** medical student, Feb. 3, 2012)

Medical students like Roger who gave similar answers emphasized that patients deserve a standard of care that is higher than what an inexperienced medical student might be able to provide and that patients aren't simply passive objects from them to learn on. This has interesting consequences for the types of objects that biomedicine produces; patients aren't just bones and organs, as one medical student said, they are embodied subjects. I argued as well in Chapter 5 that the affect of the patient is what causes challenges to medical students. This means that medical students learn to appreciate the patient experience in order to cultivate a style of practice that aligns with the shift toward patient-centered medicine.

In most all of my interviews, I heard medical students, faculty, and GTAs talk about the "patient as partner," meaning that the GTA session trains medical students to think of patients as active participants in the pelvic exam, whose thoughts, feelings, and embodied perceptions can offer valuable information. Dr. Peters described one of the benefits of the GTA program being able to "recognize patients for the expertise that they have" (medical faculty, Feb. 8, 2012).

> "If you had done it [the pelvic exam] with a physician or if you have been learning with a physician on a more passive patient, you might not get that sort of experience of partnership with a patient […] the GTA […] is sort of […] literally having to work with them in order to have success." (Ellie, medical student, Apr. 5, 2012)
>
> *
>
> "And the idea of the [G]TA as being an empowered lay person in many cases who knows a whole lot about this exam and is able to teach doctors […is…] sending the idea that, hey, you know, women know a lot about their body. They have a lot of knowledge that you as doctors may need to figure how to access and work as a partner with them to treat their health." (Anna**,** GTA, Mar. 6, 2009)

Thus, the GTA session trains medical students to approach patients not just as body-objects to be examined, but as active participants, someone to *partner* with during the exam. This is not

intended to subvert the dominance of biomedical knowledge with the patient's embodied knowledge, but is intended to reframe patients as having a type of valuable expertise that can contribute to the exam. In this way, the GTA session reframes the practice of the pelvic exam to actively include or incorporate the patient *within* biomedical means of knowing the body. Medical students are being taught that pelvic exams should involve patients at every step; the patient and her emotional experience are part of knowledge production in the pelvic exam.

The goal of including the patient's perspective in the pelvic exam isn't simply improved patient experience. As Martha, a professional director and nurse midwife, and several other faculty and directors explained to me, GTA programs did emerge at a time when women were seeking alternatives to medicine in large enough numbers to alarm physicians. Yet keeping their paying clients coming back to see them is only part of the motivation.

> "[…T]here's a big movement in medicine […] about having the doctor and the patient be more of a partnership. […Y]ou develop a sort of more humanistic aspect or more of a partnership aspect with a patient because […] you literally have to work with the patient in order to succeed in this particular case of performing the pelvic exam […] We're learning patient sensitivity and we're learning to have that sort of relationship with the patient because those exams you literally have to listen to the patient and work with them in order to have success." (Ellie**,** Apr. 5, 2012).

The "success" of the pelvic exam is tied to developing a partnership with the patient, where success is measured as seeking the truth of their disease (Foucault, 1994) and treat whatever has brought them in.

> "I think it's really important in terms of working with the students to let them know that the patient can actually help them with the exam by letting them know if anything's hurting or pinching or pulling. […] Because it's really helping both—really helping the practitioner, as well as the patient." (Sylvia**,** GTA, Mar. 28, 2009)

In this way, interventions that alter the practice of the pelvic exam to be more patient-centered also help the practitioner. Valuing the patient's subjectivity and making the patient an active part

of the exam makes the physician's job easier.

This is achieved, in part, by the impact of the affective stance of the physician. By valuing the patient's experience, medical students learn to show future patients that they are trustworthy and competent.

> "I think that it [patient-centered medicine] all comes together to help us have better communication techniques with our patients […] We're able to make our patients more comfortable and we're going to be able to help them more because now we are going to open up a little bit more and tell us more about what we need to more or trust us more […]." (Avery**,** medical student, Mar. 11, 2012)

Trust and valuing the patient's perspective reframes the doctor-patient relationship in order to improve healthcare.

> "I think when the patient feels like my physician is someone I trust then they feel almost like friends, then it makes it easier for them to tell you things, like you're going to get more meaningful information like when a patient wants to come in with some kind of symptom it might be related to some new stress at their job that you might never find out about." (Samuel, medical student, Mar. 16, 2012)

Early in my research, I noticed the medical students I interviewed making this link between a patient-centered approach and getting more and better information from their patients. Medical faculty also echoed this in some of my interviews with them. Connecting with the patient, listening to the patient, and being more empathetic will, according to this reasoning, allow physicians greater access to the "truth" of disease. This is at one level purely physical. As I was told by several interviewees, a relaxed patient is simply easier to examine. It is also a matter of communication and practicing an affective stance that encourages honest communication.

This style of practice represents a clear shift in the medical habitus that medical students are being trained to embody. This comes from a shift in biomedical discourse, which subtly alters the ideals that physicians mimic in practice. Patient-centered medicine encompasses a

whole range of attitudes, dispositions, ethical values, and techniques of the body that are different than have been previously practiced in medicine. While on one hand it is a response to the consumerist pressures and the flattening of the hierarchy between physician and patient that demonstrates the impact of biomedicalization on the field itself, it is also a new style of practice that attempts to make getting biomedical information from the patient easier for the physician. One's attitude and physical technique in practice can make the difference between discovering pathology and leaving it untreated.

This transformation in medical practice in turn shapes the types of embodied subjects that patients become. Patients-as-partners are a particular type of disciplined subject.[31]

> "So I feel like introducing a program like this [GTA program] just makes better doctors, better interpersonal doctors just more sensitive to patients feelings and the patients wants rather than kind of the hierarchical I'm the physician and you're the patient and I can do whatever I want to your body. […] I think it just puts the patient at ease and makes them more likely to trust you, more likely to talk to you and be kind of the ideal patients. […] Just the ideal patient that I think would be more cooperative, they'll trust you, they'll be more likely to take recommendations for treatment, be more likely to return […] more compliant and just, I don't know, easier to work with." (Olivia**,** medical student, Mar. 15, 2012)

Here, Olivia explicitly links the ways in which medical students learn to perceive their objects of knowledge—patients—with a concrete and specific goal: getting patients to return. Bound up in this is a complex entanglement of treatment, compliance, and docility, which reframes the "ideal" patient as one who will take charge of her health—while still listening to the physician and trusting biomedical authority.

During the GTA session, medical students learn techniques to encourage patients to come back time and again, and to submit to biomedical authority for their health and illness needs.

---

[31] As Michel Foucault shows in *Discipline and Punish*, power is productive. The same arrangements of actions, discourses, space, and time that *make* prisoners also make patients in the clinic. This is the notion of discipline: it is the mechanism of power that regulates people's lives and selves.

> "[…The GTA] said that […] this is often a good time to educate our patients. So like if you're performing a Pap smear, tell them what a Pap smear is, like explain that it's a test for cervical cancer and that it's good because cervical cancer is highly treatable when it's caught early." (Avery**,** medical student, Mar. 11, 2012)

What Avery is referring to is a particular speech that GTAs give about training patients to keep coming back for the Pap smear. GTAs teach medical students to explain that a Pap smear is a routine screening for cervical cancer that must be performed on a regular basis in order to detect cellular changes to the cervix and prevent these from becoming cervical cancer. Though it has become controversial and GTAs note that not every hospital or clinic will encourage this, GTAs also train medical students how to teach patients about the self-breast exam, instructing students to urge patients to come in if they notice changes.

Such educational movements link patient-centered approaches with active, involved patients who take charge of their healthcare.

> "I think it is empowering for the patient to come in the room and to be working with an examiner who acknowledges them as having some awareness of their own body. And actually to be empowering for that woman in that experience. […] I often talked to my students about using the exam as an opportunity to educate the patient about their own self-care as well. […] You can use that time more constructively to talk with your patient about how she can take care of herself and her own needs. […] And it's a way of eliciting more information as well as helping your patient to take more responsibility for her own health." (Sylvia**,** GTA, Sept. 16, 2009)

In this way, GTAs teach medical students how to construct objects of knowledge—patients—in ways that shape patients' own subjectivities. GTAs encourage medical students to contribute to a biomedical disciplining of patients as active and self-responsible. The ideal patient doesn't simply come into the clinic on a regular basis and submit to biomedical authority, but she is an informed and active part of her own healthcare. By teaching medical students how to encourage self-monitoring practices like the breast self-exam, monitoring the genitals for changes, and

knowing what a Pap smear is and does, GTAs contribute to the shaping of the self-responsible patient. Through biomedical education in the clinical exam, a patient "can take care of herself" and "take more responsibility for her own health". GTAs teach medical students to train patients how to actively monitor their own bodies when they leave the clinic.

These self-responsibilized medical subjects become entangled in neoliberal governmentalities in healthcare that emphasize active pursuit of health as a goal in and of itself (Rose, 2007).

> "Activism and responsibility have now become not only desirable but virtually obligatory—part of the obligation of the active biological citizen, to live his or her life th[r]ough acts of calculation and choice" (Rose, 2007: 147).

Empowering the patient isn't simply about challenging the docility that has traditionally characterized the doctor-patient relationship, especially during the pelvic exam. Empowering the patient also makes her an active, self-governing biomedical subject. She will learn how to monitor her body, how to read into it biomedical understandings of its changes and processes, and learn when and how to submit her body to the proper biomedical authority figure. In short, she will become a "good" biomedical citizen (Rose, 2007).

This facet of the GTA program reflects what Murphy (2012) calls the entanglement of feminisms and biomedicine. The empowerment model of feminist practice has become bound up in the governmentalities of contemporary neoliberal biomedicine through the crafting of this self-responsible patient subjectivity. By learning about patient experience to empower their patients and practice patient-centered medicine, medical students are also learning how to craft in practice the "ideal" patient.

Thus, shifts in biomedical discourse lead to alterations in the techniques of the body that medical students are learning and the bodily habits that they will eventually adopt. It is in this

way that form of the medical habitus itself can change through subtle modification of the social rules and norms that performances of physicians mimic.

Conclusion

In this chapter, I have shown how medical students begin to acquire the medical habitus through reciprocal and affectively entangled practices of knowing the body—their own and the patient's. In the GTA session, medical students pair their anatomical and objective scientific knowledge with the experience of doing the pelvic exam on an embodied subject. GTAs use their habituated bodies—bodies that are trained on how to feel in medical settings—to train medical students. They train medical students in part by drawing attention to the medical students' own sensory and embodied experience of performing the exam. In this way, I have shown how embodied habit can be developed and deployed in circulation between or among bodies.

In addition, in the GTA session, medical students now learn to train patients to become the "ideal" patient, one who is self-responsible, informed, and actively involved in her healthcare. This is the result of a new form of biomedical discourse in patient-centered medicine, which produces new ways that patients are materialized and new forms of disciplined subjects. This has allowed me to link the formation of the medical habitus with shifts in medical culture and ways in which styles of practice are shaped by discourse.

VII. CONCLUSION

In 2014, after I had completed data collection for this dissertation, the American College of Physicians (ACP) ignited controversy by publishing new guidelines *against* routine pelvic exams for asymptomatic, nonpregnant patients, based on systematic review of almost seventy years of medical literature (Qaseem, et al, 2014). The ACP found that the risks of annual pelvic exams do not outweigh the benefits, meaning that the increased physical and psychological harms are not justified by the associated reduction in morbidity and mortality. "With the available evidence, we conclude that screening pelvic examination exposes women to unnecessary and avoidable harms with no benefit…" (Qaseem, et al, 2014: 71). The ACP cited the $2.6 billion yearly cost of routine pelvic exams as unnecessary and added to the growing literature on the (in)effectiveness of techniques like the bimanual exam to detect pathology. It remains to be seen the future of the routine pelvic exam in clinical practice. And yet, if my central argument in this dissertation is correct, I do not expect to see a decline in the prevalence of GTA sessions regardless of how common the routine pelvic exam is.

This dissertation began with a seeming contradiction: as biomedicine becomes increasingly science-oriented, experiential learning like gynecological teaching associate programs have become ubiquitous. If the "art" of medicine is now a science, then why would the vast majority of medical schools require students to undergo these kinds of subjective experiences? I started my research with two questions: 1) what were the processes by which GTA programs came to be a part of medical education, and 2) why are GTA programs sustained in medical education? I used interview and archival data on GTA sessions at three Chicago medical schools. I argue that simulation programs like the GTA session prepares medical students to embody the professional culture of biomedicine by allowing them to practice its

emotional dispositions, physical examination techniques, and ethical values in a low-risk environment.

In Chapter 4, I explored the historical development of GTA programs. I showed how medical education emerged as a field during a time of crisis in medicine. Medical educationists became concerned with how medical students learned the pelvic exam for the first time. At the same time, the Women's Health Movement criticized these same practices. Medical educationist and feminist activists collaborated on new ways of teaching the exam and thus reassembled the pelvic exam as it is practiced. Simulation like the GTA program allowed medical educationists to leverage scientific capital and solidify the field of medical education. As GTA programs became entrenched in medical schools, feminist goals of patient empowerment became entangled with medical educationists' goals of reducing student anxiety. The reassembled pelvic exam remains in practice today.

In Chapter 5, I considered how simulation allowed medical students to rehearse their exam skills in a low-risk, reflexive environment. This helps medical students "play with" and begin to embody the medical habitus. One skill set is that of professionalism, which is an affective disposition guiding the performance of the sensitive exam. I claimed that simulation is successful when it feels real to the medical student, and I showed how this affective resonance hinges on the emotional labor that GTAs perform.

In Chapter 6, I explored how it is that the GTA session teaches medical students to know their objects of knowledge. For medical students, the GTA session involves merging anatomical and experiential knowledge in order to remake their body hexis as they inculcate the medical habitus. I showed how GTAs use their habituated bodies to teach correct technique, and I showed that the first step in remaking medical students' embodiment is through developing

somatic modes of attention. I considered how shifts in the field of medicine through the alteration of the doctor-patient relationship have changed how medical students are taught to understand their objects of knowledge. I concluded that the reassembled pelvic exam in practice is one of an affective entanglement between medical student and patient.

In Chapter 2, I outlined my contributions. First, I have explored the iterative relationship between patient cultures and medical culture to show how the medical habitus is shaped by both and how its inculcation depends on both. Second, I have considered the rapid transformations in biomedicine over the past three decades and how these changes have altered practices in medical schools. Third, I have considered the role of simulation in the professional development of medical students. Fourth, I have shown how affect is produced in medical school.

I would like to turn toward the theoretical implications of my work. Simulation in the GTA session represents what I call affective practice: "any deliberate and repetitive rehearsal of techniques or styles of expressing, experiencing, or managing emotion that reshape the body's capacity to feel so that these dispositions become unconscious and seemingly natural" (Underman, 2015: 180). These affective dispositions are field-specific, in that they equip individuals to participate in a previously unfamiliar cultural milieu. Because affective practices are determined by the field, any change or shift in the field alters how capacities to feel are trained into the body. Affective practices rework how the individual experiences and expresses her own emotions, but they also encompass how individuals manage and attempt to shape the emotional experiences of others. Other types of simulations can be considered affective practices and, more broadly, any such deliberate rehearsal of new styles of expressing, experiencing, or managing one's own or another's emotions can be considered. This has implications both for research on inculcation of a secondary habitus or secondary socialization more broadly. This also

has implications for studies of affective labor, as it shows that not all manipulations of affective states are consciously deliberate.

Future research should consider the implications for doctor-patient interaction. I have suggested in this dissertation that the new emotional habitus alters the ways in which medical students are trained to manage and evoke emotional responses in their patients. How does this transformation in the emotional culture of medical school shape how the next generation of doctors manages their own and their patients' emotions in the clinic? Does this transformation alter the field of medicine and if so, how? Future research should also consider the affective practices of other fields. Biomedicine isn't the only profession with a prolonged training period and field-specific set of affective practices. What about other training grounds such as law school, education, the military, and academia? Finally, future research should consider more thoroughly the question of how affect matters in the reproduction or modification of the habitus.

CITED LITERATURE

Abrahamson, Stephen. 1960. "The Professional Educator and Medical Education." *The Journal of Higher Education* 31(1):38-41.

Adele Clarke. 2005. *Situational Analysis: Grounded Theory After the Postmodern Turn.* Thousand Oaks, CA: Sage.

Ahmed, Sara. 2004. "Affective Economies." *Social Text* 22(2): 117-139.

Armstrong, David. 1995. "The Rise of Surveillance Medicine." *Sociology of Health & Illness* 17(3): 393-404.

Barad, Karen M. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning.* Durham, NC: Duke University Press.

Barrows, Howard S. and Stephen Abrahamson. 1964. "The Programmed Patient: A Technique for Appraising Student Performance in Clinical Neurology." *Academic Medicine* 39(8): 802-805.

Becker, Howard S. 2002. *Boys in White: Student Culture in Medical School.* New York: Transaction publishers.

Beckmann, Charles R., BM Barzansky, BF Sharf and K. Meyers. 1988. "Training Gynaecological Teaching Associates." *Medical Education* 22(2): 124-131.

Beckmann, CRB, GH Lipscomb, L. Williford, E. Bryant and FW Ling. 1992. "Gynaecological Teaching Associates in the 1990s." *Medical Education* 26(2): 105-109.

Beckmann, C. R. and K. Meyers. 1988. "Mental and Physical Effects of being a Gynecologic Teaching Associate." *The Journal of Reproductive Medicine* 33(1): 22-24.

Bell, Susan. 1979. "Political Gynecology: Gynecological Imperialism and the Politics of Self-Help." *Science for the People* 11: 8-14.

Bensing, Jozien. 2000. "Bridging the gap: The separate worlds of evidence-based medicine and patient-centered medicine." *Patient Education and Counseling,* 39(1): 17-25.

Berg, Marc. 1997. *Rationalizing Medical Work: Decision-Support Techniques and Medical Practices.* Cambridge, MA: MIT press.

Bernstein, Elizabeth. 2007. *Temporarily Yours: Intimacy, Authenticity, and the Commerce of Sex.* Chicago, IL: University of Chicago Press.

Bloom, Samuel W. 1988. "Structure and Ideology in Medical Education: An Analysis of Resistance to Change." *Journal of Health and Social Behavior* 29(4): 294-306.

Bourdieu, Pierre. 2000. *Pascalian Meditations.* Stanford, CA: Stanford University Press.

------. 1993. *Sociology in Question.* London: Sage.

------. 1977. *Outline of a Theory of Practice.* Cambridge, UK: Cambridge University Press.

Boyd, Nan A. 2008. "Who is the Subject?: Queer Theory Meets Oral History." *Journal of the History of Sexuality* 17(2): 177-189.

Brosnan, Caragh. 2010. "Making Sense of Differences between Medical Schools through Bourdieu's Concept of 'field'." *Medical Education* 44(7): 645-652.

------. 2009. "Pierre Bourdieu and the Theory of Medical Education." Pp. 51-68 in *Handbook of the Sociology of Medical Education*. New York, NY: Routledge.

Brown, Phil., Zavestoski, S., McCormick, S., Mayer, B., Morello‐Frosch, R., & Gasior Altman, R. 2004. Embodied health movements: new approaches to social movements in health. *Sociology of Health &Illness,* 26(1): 50-80.

Buck, G. H. 1991. "Development of Simulators in Medical Education." *Gesnerus* 48 Pt 1:7-28.

Butler, Judith. 1997. *Excitable Speech: A Politics of the Performative.* New York: Routledge.

------. 1993. *Bodies that Matter: On the Discursive Limits of "Sex"* .New York: Routledge.

Cetina, Karin K. 2009. *Epistemic Cultures: How the Sciences make Knowledge.* Harvard University Press.

Church, Kathryn. 1995. *Forbidden Narratives: Critical Autobiography as Social Science.* New York: Gordon and Breach Publishers.

Clarke, Adele E., Janet K. Shim, Laura Mamo, Jennifer R. Fosket and Jennifer R. Fishman. 2003. "Biomedicalization: Technoscientific Transformations of Health, Illness, and U.S. Biomedicine." *American Sociological Review* 68(2): 161-194.

Clough, Patricia T. and Jean Halley. 2007. *The Affective Turn: Theorizing the Social.* Durhman, NC: Duke University Press.

Davidson, Julia O. and Derek Layder. 1994. *Methods, Sex and Madness.* London, UK: Routledge.

Davis, Margery H., Indika Karunathilake and Ronald M. Harden. 2005. "AMEE Education Guide no. 28: The Development and Role of Departments of Medical Education." *Medical Teacher* 27(8): 665-675.

Deleuze, Gilles and Felix Guattari. 1987. *A Thousand Plateaus: Capitalism and Schizophrenia.* Minneapolis: University of Minnesota Press.

Douglas, Mary. 2002. *Purity and Danger: An Analysis of Concepts of Pollution and Taboo.* London, UK: Routledge.

Ellis, Jeffrey W. and Charles R. B. Beckmann. 1983. *A Clinical Manual of Gynecology.* Norwalk, Conn: Appleton-Century-Crofts.

Epstein, Steven. 1996. *Impure Science: AIDS, Activism, and the Politics of Knowledge.* Berkeley, CA: University of California Press.

Foucault, Michel. 1995. *Discipline and Punish: The birth of the prison*. New York: Vintage Books.

------. 1994. *The birth of the Clinic: An archaeology of medical perception*. New York: Vintage Books.

Fox, Renée C. 1979. *Essays in Medical Sociology: Journeys into the Fields.* New York, NY: Transaction Publishers.

Freidson, Eliot. *Professional Dominance: The Social Structure of Medical Care.* New York, NY: Transaction Publishers.

Giuffre, Patti A. and Christine L. Williams. 2000. "Not just Bodies: Strategies for Desexualizing the Physical Examinations of Patients." *Gender & Society* 14(3): 457-482.

Glazer, Sarah. 1992. "Pelvic Exams from a Woman's Point of View." *The Washington Post*, 112: 12-13.

Goffman, Erving. 1982. *Interaction Ritual: Essays on Face-to-Face Behavior.* New York: Pantheon Books.

Good, Mary-Jo D. 1995. *American Medicine: The Quest for Competence.* Berkeley, CA: University of California Press.

Gould, Deborah B. 2009. *Moving Politics: Emotion and ACT UP's Fight Against AIDS.* Chicago, IL: University of Chicago Press.

Guenther, S. M., D. W. Laube and S. Matthes. 1983. "Effectiveness of the Gynecology Teaching Associate in Teaching Pelvic Examination Skills." *Academic Medicine* 58(1): 67-69.

Hafferty, Frederic W. 1998. "Beyond Curriculum Reform: Confronting Medicine's Hidden Curriculum." *Academic Medicine* 73(4): 403-407.

Hafferty, Frederic W. and Ronald Franks. 1994. "The Hidden Curriculum, Ethics Teaching, and the Structure of Medical Education." *Academic Medicine* 69(11): 861-871.

Haraway, Donna. 1988. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14(3): 575-599.

Harding, Sandra G. 1998. *Is Science Multicultural?: Postcolonialisms, Feminisms, and Epistemologies.* Bloomington, IN: Indiana University Press.

Hesse-Biber, Sharlene and Patricia L. Leavy. 2006. *Feminist Research Practice: A Primer.* Thousand Oaks, CA: Sage.

Hirschauer, Stefan. 1991. "The Manufacture of Bodies in Surgery." *Social Studies of Science* 21(2): 279-319.

Hochschild, Arlie R. 2012. *The Managed Heart: Commercialization of Human Feeling.* Berkeley, CA: University of California Press.

Hoffman, Steve G. 2006. "How to Punch Someone and Stay Friends: An Inductive Theory of Simulation." *Sociological Theory* 24(2): 170-193.

Johnson, Ericka. 2008. "Simulating Medical Patients and Practices: Bodies and the Construction of Valid Medical Simulators." *Body & Society* 14(3):1 05-128.

Kang, Miliann. 2003. "The Managed Hand: The Commercialization of Bodies and Emotions in Korean Immigrant-Owned Nail Salons." *Gender and Society* 17(6):820-839.

Kapsalis, Terri. 1997. *Public Privates: Performing Gynecology from both Ends of the Speculum.* Durham, NC: Duke University Press.

Kendall, Patricia L. and George G. Reader. 1988. "Innovations in Medical Education of the 1950s Contrasted with those of the 1970s and 1980s." *Journal of Health and Social Behavior* 29(4): 279-293.

Kent, Le'a. 2001. "Fighting abjection: Representing fat women." Pp. 130-150 in *Bodies out of bounds: Fatness and transgression* . Berkeley, CA: University of California Press.

Kirsch, Gesa E. 2005. "Friendship, Friendliness, and Feminist Fieldwork." *Signs* 30(4): 2163-2172.

Klawiter, Maren. 2008. *The Biopolitics of Breast Cancer: Changing Cultures of Disease and Activism.* Minneapolis: University of Minnesota Press.

Kline, Wendy. 2010. *Bodies of Knowledge: Sexuality, Reproduction, and Women's Health in the Second Wave.* Chicago, IL: University of Chicago Press.

Kretzschmar, R. M. 1978. "Evolution of the Gynecology Teaching Associate: An Education Specialist." *American Journal of Obstetrics and Gynecology* 131 (4):367.

Kristeva, Julia. 1982. *Powers of Horror: An Essay on Abjection.* New York: Columbia University Press.

Laine, C. and F. Davidoff. 1996. "Patient-Centered Medicine. A Professional Evolution." *Journal of the American Medical Association* 275(2): 152.

Latour, Bruno. 1987. *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge, MA: Harvard University Press.

Lawton, Julia. 1998. "Contemporary Hospice Care: The Sequestration of the Unbounded Body and 'Dirty Dying'." *Sociology of Health and Illness* 20(2): 121-143.

Lempp, Heidi and Seale, C. 2004. "The Hidden Curriculum in Undergraduate Medical Education: Qualitative Study of Medical Students' Perceptions of Teaching." *BMJ (Clinical Research Ed.)* 329(7469): 770-773.

Lempp, Heidi. 2009. "Medical-School Culture." Pp. 71-88 in *Handbook of the Sociology of Medical Education*: New York: Routledge.

Lofland, John. 2006. *Analyzing Social Settings: A Guide to Qualitative Observation and Analysis.* Belmont, CA: Wadsworth/Thomson Learning.

Luke, Haida. 2003. *Medical Education and Sociology of Medical Habitus:"It's Not about the Stethoscope!".* Secaucus, NJ: Kluwer Academic Publishers.

Mauss, Marcel. 1973. "Techniques of the body." *Economy and society* 2(1): 70-88.

McNay, L. 1999. "Gender, Habitus and the Field: Pierre Bourdieu and the Limits of Reflexivity." *Theory, Culture & Society* 16(1):95-117.

Merleau-Ponty, Maurice. 2002. *Phenomenology of Perception.* New York: Routledge.

Merton, Robert K. 1957. *The Student Physician: Introductory Studies in the Sociology of Medical Education*. Cambridge, MA: Harvard University Press.

Miller, George E. 1980. *Educating Medical Teachers.* Cambridge, MA: Harvard University Press.

Mol, Annemarie. 2002. *The Body Multiple: Ontology in Medical Practice.* Durham, NC: Duke University Press.

Morgen, Sandra. 2002. *Into our Own Hands: The Women's Health Movement in the United States, 1969-1990.* New Brunswick, NJ: Rutgers University Press.

Murphy, Michelle. 2012. *Seizing the Means of Reproduction: Entanglements of Feminism, Health, and Technoscience.* Durham, NC: Duke University Press.

------. 2006. *Sick Building Syndrome and the Problem of Uncertainty: Environmental Politics, Technoscience, and Women Workers.* Durham, NC: Duke University Press.

Myers, Natasha. 2012. "Dance Your PhD: Embodied Animations, Body Experiments, and the Affective Entanglements of Life Science Research." *Body & Society* 18(1): 151-189.

------. 2008. "Molecular Embodiments and the Body-Work of Modeling in Protein Crystallography." *Social Studies of Science* 38(2): 163-199.

Norsigian, Judy. 1975-1976. "Training the Docs." *Healthright* Winter.

Pelvic Teaching Program. 1975. "Experiences of a Pelvic Teaching Group." *Women & Health* 1(4): 19-20.

Prentice, Rachel. 2012. *Bodies in Formation: An Ethnography of Anatomy and Surgery Education.* Durham, NC: Duke University Press.

Qaseem, Amir, Linda L. Humphrey, Russell Harris, Melissa Starkey, Thomas D. Denberg and Clinical Guidelines Committee of the American College of Physicians. 2014. "Screening Pelvic Examination in Adult Women: A Clinical Practice Guideline from the American College of Physicians." *Annals of Internal Medicine* 161(1): 67.

Ringrose, Jessica and Emma Renold. 2014. ""F**k Rape!": Exploring Affective Intensities in a Feminist Research Assemblage." *Qualitative Inquiry* 20(6): 772-780.

Rose, Nikolas. 2007. *The Politics of Life itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century.* Princeton, NJ: Princeton University Press.

Rosinski, Edwin F. 1988. *The Society of Directors of Research in Medical Education : A Brief History.* Office of Medical Education, University of California, San Francisco.

Ross, S. E. 1962. "Programmed Instruction and Medical Education." *Journal of the American Medical Association* 182:938-939.

Scott, Joan W. 1991. "The Evidence of Experience." *Critical Inquiry* 17(4): 773-797.

Scott, John. 1990. *A Matter of Record: Documentary Sources in Social Research* .Cambridge, UK: Polity Press.

Shain, R. N., S. H. Crouch and P. C. Weinberg. 1982. "Evaluation of the Gynecology Teaching Associate Versus Pelvic Model Approach to Teaching Pelvic Examination." *Journal of Medical Education* 57(8): 646-648.

Sinclair, Simon. 1997. *Making Doctors: An Institutional Apprenticeship.* Oxford, UK: Berg Publishers.

Starr, Paul. 1982. *The Social Transformation of American Medicine.* New York: Basic Books.

Sullivan, Shannon. 2001. *Living Across and through Skins: Transactional Bodies, Pragmatism, and Feminism.* Bloomington, IN: Indiana University Press.

Susan Wells. 2008. "Our Bodies, Ourselves: Reading the Written Body." *Signs* 33(3): 697-723.

Thomas, Jan E. and Mary K. Zimmerman. 2007. "Feminism and Profit in American Hospitals the Corporate Construction of Women's Health Centers." *Gender & Society* 21(3): 359-383.

Thompson, Charis. 2005. *Making Parents: The Ontological Choreography of Reproductive Technologies.* Cambridge, MA: MIT Press.

Timmermans, Stefan and Alison Angell. 2001. "Evidence-Based Medicine, Clinical Uncertainty, and Learning to Doctor." *Journal of Health and Social Behavior* 42(4):342-59.

Timmermans, Stefan, and Marc Berg. 2010. *The Gold Standard.* Philadelphia, PA: Temple University Press.

Underman, Kelly. 2011. "'It's the Knowledge That Puts You in Control': The Embodied Labor of Gynecological Educators." *Gender & Society* 25(4): 431-450.

------. 2015. "Playing Doctor: Simulation as Affective Practice." *Social Science & Medicine* 136-137: 180-188.

Ventresca, Marc J. and John W. Mohr. 2002. "Archival Research Methods." *The Blackwell Companion to Organizations* 805-828.

Wacquant, Loïc. 2004. *Body & Soul: Notebooks of an Apprentice Boxer.* New York: Oxford University Press.

------. 2011. "Habitus as Topic and Tool: Reflections on Becoming a Prizefighter." *Qualitative Research in Psychology* 8(1): 81-92.

------. 2014. "Homines in Extremis: What Fighting Scholars Teach Us about Habitus." *Body & Society* 20(2):3-17.

Wainwright, Steven P., Clare Williams and Bryan S. Turner. 2006. "Varieties of Habitus and the Embodiment of Ballet." *Qualitative Research* 6(4): 535-558.

Wallace, P. 1997. "Following the Threads of an Innovation: The History of Standardized Patients in Medical Education." *Caduceus* 13(2): 5-28.

Weiss, Kay. 1975. "What Medical Students Learn about Women." *Off our Backs* 5(4): 24-25.

Wolf, Diane L. 1996. *Feminist Dilemmas in Fieldwork.* Boulder, C): Westview Press.

Wolkowitz, Carol. 2006. *Bodies at Work.* London: Sage.

Young, Katharine G. 1997. *Presence in the Flesh: The Body in Medicine.* Cambridge, MA: Harvard University Press.

Ziv, Amitai, Paul R. Wolpe, Stephen D. Small and Shimon Glick. 2003. "Simulation-Based Medical Education: An Ethical Imperative." *Academic Medicine : Journal of the Association of American Medical Colleges* 78(8): 783-788.

APPENDICES

APPENDIX A: Interviewees

Gynecological Teaching Associates	
Alex	Oct. 7, 2009
Anna	Mar. 6, 2009; May 12, 2012
Ashley	Feb. 17, 2009
Beth	Apr. 4, 2009
Bonnie	Feb. 23, 2009
Cassandra	Feb. 23, 2009
Deborah	Feb. 25, 2009
Elizabeth	Dec. 10, 2011
Evelyn	May 13, 2009
Grace	Mar. 3, 2009
Gretchen	Mar. 10, 2009
Ingrid	Feb. 22, 2009
Jaclyn	Nov. 28, 2011
Jill	Mar. 3, 2009
Riley	June 15, 2009
Ruth	Mar. 8, 2009
Samantha	July 9, 2012
Sylvia	Mar. 28, 2009
Viviann	Mar. 11, 2009
Professional Directors	
Donna	Nov. 19, 2011
Heather	Jan. 27, 2012
Lena	Dec. 14, 2011
Martha	Apr. 20, 2009; Oct. 22, 2012

Rachel	Dec. 19, 2011
Sergei	Jan. 27, 2012
Tom	Apr. 3, 2012
Medical Faculty	
Dr. Thompson	Apr. 13, 2012
Dr. Leslie	Mar. 26, 2012
Dr. Matsuda	Jan. 11, 2012
Dr. Nichols	June 20, 2012
Dr. Orlin	Jan. 23, 2012
Dr. Peters	Feb. 8, 2012
Medical Students	
Amber	Jan. 25, 2012
Avery	Mar. 11, 2012
Basil	Aug. 24, 2012
Carolina	Feb. 28, 2013
Christopher	Mar. 6, 2013
Daphne	Mar. 26, 2012
Ellie	Apr. 5, 2012
Emory	Apr. 5, 2012
Jacob	Mar. 13, 2012
Jason	Mar. 13, 2012
Jeff	Aug. 8, 2012
Kathleen	Mar. 7, 2012
Michelle	Mar. 5, 2012
Molly	Jan. 28, 2012
Olivia	Mar. 15, 2012
Roger	Feb. 3, 2012

Sally	Dec. 12, 2011
Samuel	Mar. 16, 2012
Sarah	Mar. 13, 2012
Shay	Mar. 9, 2012
Stephanie	Mar. 7, 2012
Ted	Mar. 27, 2012
Tricia	Mar. 29, 2012

APPENDIX B: Guidelines for the Pelvic Exam

This appendix includes two examples of checklists or guidelines that were developed for teaching the pelvic exam from the archival materials I gathered.

1: Pelvic Examination Instruction

Developed by Ms. Reiter, Ms. Hamilton, and Ms. Guenther[32]

DESCRIPTION AND GUIDE FOR CONDUCTING A QUALITY PELVIC EXAMINATION

I. FACILITATING PATIENT COMFORT, COOPERATION, AND RELAXATION

The interaction during a pelvic examination can be divided into those behaviors which are solely the responsibility of the doctor, including verbal and nonverbal behavior, and those which require active participation of the patient, patient's cooperative behavior. Attention to all types of interaction sets a climate to facilitate a quality pelvic exam.

Doctor's Verbal Behavior

1. Acknowledge patient's anxiety (i.e., "You seem nervous about this exam, and that's understandable.").
2. Inquire if she has had difficulty with previous pelvic exams.
3. Assure her that you will do your best to make the exam comfortable.
4. Provide patient with rationale for need to relax.
5. Assure patient all procedures and instructions will be shown and explained.
6. Give patient permission to stop you if exam in uncomfortable.
7. Elicit verbal commitment from patient.
8. Ask if patient is as physically comfortable as possible before proceeding with exam.
9. Use appropriate level of terminology, i.e., "not too scientific and not too condescending".
10. Avoid vocabulary with sexual connotations.
11. Avoid inappropriate humor.
12. Use supportive tone of voice.

Doctor's Nonverbal Behavior

1. Check patient is physically comfortable before and during exam.

[32] This checklist was photocopied from a spiral-bound book of materials. Its origins are unknown. The photocopy was in a folder of materials from a personal collection. Based on its content, I assume it is from the late 1970s or early 1980s. I have attempted to reproduce it here faithfully; however, the photocopy degraded over time.

2. Give verbal cues before physical cues.
3. Equalize power space as soon as possible.
4. Protect patient's personal space.
5. Use slow motions which allow patient to maintain relaxation.
6. Avoid unnecessary physical contact and pressure.
7. Remember to exert posterior pressure.
8. Avoid undue familiarity.
9. Maintain eye contact with patient.
10. Use lubricant generously.
11. Drape patient to facilitate eye contact and patient monitoring.

Patient's Cooperative Behavior

1. Patient agrees to have head raised, which relaxes muscles and places her in a more equal position.
2. Patient agrees to become involved in exam, i.e. feeling her own uterus, nodes, or holding sheet.
3. Patient agrees to lift gown, which gives her control of exposing her body.
4. Patient becomes aware of tense muscles and learns to relax them.
5. Patient learns to control breathing, i.e. "take a ddep *[sic]* breath".
6. Patient learns to relax her knees out to the side, i.e. "let your knees fall out to my hands".
7. Patient supports her thighs when necessary.

II. Abdominal Exam

The abdominal exam provides an opportunity to build a sense of trust and rapport with the patient which makes a quality pelvic exam possible. Attention to certain interpersonal factors is useful for this purpose, recognizing that even a healthy patient has a certain amount of anxiety which interferes with her cooperation. It is therefore necessary to allow the patient time to cooperate with your verbal requests. It is also useful to slow down your physical motions in order to allow her time to maintain the required muscular relaxation, to monitor your patient's tenseness and to use relaxation technique. Whenever possible, use verbal instructions and allow patient to move her own body.

1. Inform patient exam is about to begin.
2. Assist with positioning patient, i.e. remember to extend shelf.
4. Ask for patient's assistance if necessary.
4. Ask if there is any tenderness.
5. Invite patient to inform of any discomfort.
6. Inform patient of superficial and/or deep palpation.
7. Use warm hands.
8. Explain exam as you proceed, i.e., "I am checking your liver", etc.
9. Examine four quadrants.
10. Feel for masses.
11. Feel for liver, spleen, lymph nodes, pulses.

12. Observe and comment on abnormalities (scars).

III. Positioning and Preparing Patient for Pelvic Exam

The transfer from the abdominal exam to the pelvic exam is typically a time of increased anxiety for the patient. The doctor can help alleviate much of this anxiety by maintaining contact with the patient while she is being positioned and by attending to certain of her physical requirements.

1. Inquire if patient is ready (transition phase).
2. Introduce the nurse and ask her/him to assist.
3. Raise the back of the exam table.
4. Assist her feet into stirrups.
5. Assist with pillow.
6. Assist the patient to slide down to the level of a hand placed at end of table.
7. See that drapes are correctly arranged to facilitate eye contact—i.e. "I can see you / you can see me."
8. Ask if patient is comfortable.
9. Ask about previous experiences and offer reassurance where necessary.
10. Sit down as soon as possible to equalize space.

IV. Exam of External Genitalia

There are two important principles to remember during examination of the external genitalia: first, the patient is practically blind in the lithotomy position and needs to be given verbal descriptions of all yours actions; second, preventative medicine requires a degree of comfort with looking at genitals sufficient to allow careful visual investigation of the external genitalia.

1. Enlist patient's cooperation and request. Wait, i.e. "let knees fall out to my hands".
2. Wait for patient's cooperation—recognize anxiety interrupts that cooperation.
3. Verbal cue followed by tactile cue—hand on thigh.
4. Hand on outside of vagina. "Now I am going to touch the outside of your vagina."
5. Hand on labia. "Now I am going to be spreading your labia."
6. Include these structures: clitoris, Bartholin glands, Skene's glands, periurethral glands, and the introitus.
7. Use smooth versus jabbing motion of fingers.

V. Speculum Exam, Papanicolaou Smear, and GC Culture

Since the majority of patients it is neither possible nor advisable to attempt to distract her from the necessary interference with her physical integrity (the patient's fantasy of distress can be far worse than the reality), it is advisable to allay anticipatory anxiety by a thorough explanation and display of all instruments and procedures and to contract with the patient to stop and make adjustments if any part of the exam is creating distress. Physicians have the responsibility to inform their patients of the meaning and importance of regularly making appointments for cancer and VD screening tests.

1. Select correct sized speculum. If not, change.
2. Show and explain speculum.
3. Tell patient, "The speculum might feel cool."
4. Spread labia and introitus to create opening.
5. Use posterior pressure, inserting downward and inward.
6. Check for resistance from dryness or pubic hair.
7. Verbalize—"Some women have discomfort and some don't—let me know if you are uncomfortable."
8. Pass Ayers spatula, cotton swab, and any other instruments in patient's line of vision.
9. Explain that the Papanicolaou smear is a cancer detection test.
a. Collect cells with Ayers spatula. (Ayers spatula—rotated, spread out thinly on slide, and fixed.)
b. Insert cotton tip into os. (Cotton swab—rotated, rolled on slide, and fixed.)
c. Obtain GC culture—explain that this is routine for all patients.
10. Remove speculum.
a. Lift blades off cervix.
b. Remember—posterior pressure.
c. Rotate speculum—tell patient.
d. Visual exam—progressive observation.

VI. Bimanual Exam

A relaxed, comfortable patient is essential in order to palpate her internal structures. It is helpful to involve your patient by eliciting her cooperation and active participant on relaxing the abdominal muscles. Monitor your patient's face for cues as to her comfort. Also, it is useful to monitor the patient for muscle tension. If she seems to be resisting, it helps to slow down and give her a chance to work with you instead of against you.

1. Use lubricating jelly generously on hairs, labia, backs of gloved fingers, and introitus.
2. Apply downward pressure at fourchette.
3. Pause to enhance relaxation.
4. Insert middle and forefinger into vagina.
5. Position your body for proper angle and strength.
6. Inform patient she will be feeling firm pressure and possibly some tenderness.
7. Check muscle relaxation—if not present, give patient specific instructions about how to relax, i.e. deep breaths, paying attention to muscle tension.
8. Involve the patient in exam, i.e, describe cervix, offer her the option to feel uterus.
9. Palpate the cervix, noting:
a. Size.
b. Position.
c. Contour.
d. Consistency.
e. Movement of the cervix. Stretch uterosacral and transverse cervical ligaments.
f. Mobility.

g. Pelvic tenderness.
h. Appropriate pressure.
Give description of this procedure and findings to the patient during the examination.
10. Palpate the uterus, noting:
a. Position.
b. Size.
c. Mobility.
d. Tenderness.
e. Contour.
f. Consistency.
g. Appropriate pressure.
Give description of this procedure and findings to the patient during the examination.
11. Palpate ovaries, noting:
a. Right.
b. Left.
c. Appropriate pressure.
d. Facial observation of patient.
12. Apply pressure while patient exhales.

VII. Rectovaginal Exam

A quality pelvic exam is not complete without a confirmatory rectovaginal exam. This part of the exam need not be uncomfortable if you wait for the sphincter muscle to relax, use slow motions, and give the patient verbal support.
1. Inform the patient verbally, i.e., "I will be inserting one finger into your rectal sphincter and one finger into your vagina."
2. Relubricate rectal finger.
3. Instruct patient to relax anal sphincter, i.e., "Bear down against my finger."
4. Insert rectal finger anteriorly until through anal sphincter then angle posteriorly.
5. Examine septum between two fingers.
6. "Reach up" with extended rectal finger past cervix to examine cul-de-sac, uterosacral and sacrococcygeal ligaments.
7. Palpate to confirm vaginal fingers of cervix, uterus (posterior aspect), and ovaries.

VIII. Closure of the Exam

Often since a patient will wait until the last minute to voice any concerns, it is important at this point to offer an opportunity for her to ask questions.
1. Assist patient to sit up and out of the lithotomy position immediately.
2. Summarize and discuss exam findings with patient.
3. Indicate how patient will receive lab reports.
4. Elicit and respond to any patient questions.

2. Pelvic Exam Checklist from the Association of Professors of Gynecology and Obstetrics (APGO)[33]

Direct Observation of the Patient	Well Done	Needs Improvement	Not Done	Cannot Recall
Communication/Interpersonal Skills				
Introduces self and explains role				
Established names/relationships of family				
Starts with open-ended question				
Uses appropriate eye contact, body language				
Uses facilitative listening skills				
Demonstrates empathy				
Preparation				
Checks all equipment/supplies				
Adjusts exam light prior to gloving				
Washes hands				
General Techniques/Exam Skills				
Demonstrates concern for the patient's comfort and modesty				
Explains to patient/parent what is being done				
Enlists the patient's/parent's cooperation during the exam				
Follows a logical sequence of exam from one region to another				
Emphasizes areas of importance as suggested by interview				
Modifies the exam to adapt to patient limitations (imposed by illness, age or temperament of patient)				
Positions patient on back, hips to end of table and heels on foot rests				
Wears gloves throughout exam				
Gloves remain clean (no contamination)				
Avoids unexpected/sudden movements				
External Examination				
Examines external genitalia				
Inspects mons pubis				
Inspects labia majora				
Inspects labia minora				
Inspects clitoris				

[33] I adapted these tables their handbook on the pelvic exam published in 2008.

Inspects urethral meatus				
Inspects introitus				
Inspects Bartholin's gland				
Inspects perineum				
Inspects anus				
Speculum Examination				
Holds speculum at a 45-degree angle				
Inspects speculum properly				
Rotates speculum at full insertation				
Opens speculum slowly				
Identifies cervix				
Secures speculum in open position				
Inspects cervix				
Inspects vaginal walls while removing speculum				
Handles speculum appropriately				
Removes speculum appropriately				
Bimanual Pelvic Examination				
Introduces fingers into vagina				
Palpates cervix and cervical os				
Palpates uterine body, apex of fundus				
Notes uterine size				
Describes position of uterus				
Palpates right adnexa/ovary				
Palpates left adnexa/ovary				
Bimanual Rectovaginal (RV) Examination				
Re-gloves for RV exam				
Asks patient to bear down as finger is inserted				
Inserts middle finger into rectum				
Inserts middle finger into vagina				
Palpates uterus				
Palpates right adnexa/ovary				
Palpates left adnexa/ovary				
Removes fingers smoothly				
Professional Conduct/Additional Skills				
Describes each step of exam to patient prior to performing				
Maintains patient modesty				
Attends to patient's comfort				
Performed exam in a gentle and professional manner				
Extends bottom of exam table for patient comfort				

Instructs patient to return to sitting position at conclusion of exam				
Patient Education Skills (when appropriate)				
Elicits patient's understanding of problem				
Addresses beliefs, misconceptions				
Gives explanations in clear language, avoids jargon				
Invites questions/checks for understanding				

APPENDIX C: Organizational Information

Gynecological teaching associates (GTA) sessions typically last about an hour and a half. GTAs typically see three to four students per session and teach two to four sessions per day. GTAs may teach either by themselves on in pairs (with one person the table and one person taking the instructor's role). Some schools divide the breast and pelvic exam into separate sessions. During the session, the GTAs walk the students through a complete breast and/pelvic exam, as outlined in Appendix C.

GTA work is seasonal, with the busiest times during March and April. It is not possible to make GTA work one's entire source of income. GTAs either use the work to supplement their full-time jobs or piece together GTA work with other standardized patient work. GTAs make about $55-$65 per hour.

Training involves reading all of the materials that medical students receive and a lengthy process of on-the-job learning. GTAs will be supervised by a senior GTA until they are comfortable enough to teach on their own.

VITA

Kelly Underman
Doctoral Candidate
Department of Sociology
University of Illinois at Chicago
1007 W Harrison
Chicago, IL 60607

EDUCATION

Expected PhD in Sociology, University of Illinois at Chicago, Chicago, Illinois
July 2015 Dissertation: "A Feel for the Clinic: Affect, Embodiment, and Simulation in the Pelvic Exam"
Committee: Laurie Schaffner (Chair), Claire Decoteau, Paul-Brian McInerney, Sydney Halpern, Sandra Sufian (Department of Medical Education) 2009
MA in Sociology, University of Illinois at Chicago, Chicago, Illinois
2005 BA in Psychology, *magna cum laude*, Case Western Reserve University, Cleveland, Ohio

AWARDS

2012 Alice J. Dan Dissertation Research Award, Center for Research on Women and Gender, University of Illinois at Chicago

RESEARCH INTERESTS

Health and medicine, science and knowledge, embodiment and the body, gender and women's studies

PUBLICATIONS

Peer-Reviewed Articles

2015 "Playing Doctor: Simulation as Affective Practice." *Social Science & Medicine,* 136-137: 180-188.
2011 "'It's the Knowledge That Puts You in Control': The Embodied Labor of Gynecological Educators." *Gender & Society*, 25(4): 431-450.

Peer-Reviewed Articles, Forthcoming

Claire Decoteau and **Kelly Underman**. "Adjudicating Nonknowledge in the Autism Omnibus Proceedings." *Social Studies of Science*

Peer-Reviewed Articles, In Preparation

Kelly Underman, Paige Sweet, and Claire Decoteau. "Suffering (Non)Subjects?: Custodial Citizenship in the Omnibus Autism Proceedings."

CONFERENCE PRESENTATIONS

2015 "What Does it Mean to Relax Your Hand?" Open Embodiments, Somatechnics Research Network, Tucson, AZ.

2014 "Making Objects of Knowledge." Eastern Sociological Society Annual Meeting, Baltimore, MD. Feb. 21
2013 "Authenticity and Artificiality in Simulation." Society for the Social Studies of Science Annual Meeting, San Diego. Oct. 11
2013 With Claire Decoteau. "Harm versus Risk in the Adjudication of Autism." Society for the Social Studies of Science Annual Meeting, San Diego. Oct. 10
2013 With Claire Decoteau. "Science on Trial: The Omnibus Autism Proceedings and the Co-Production of Uncertainty." American Sociological Association Annual Meeting, New York. Aug. 12
2012 "The Emergence of Gynecological Educator Programs at UIC." Department of Medical Education Works in Progress Series, Chicago, IL, Dec. 5.
2012 "Working (In) the System: How Feminists Were Enrolled in Reforming Medical Education." Engendering Change, University of Chicago, Chicago, IL, Apr. 28.
2011 "Humanzing the pelvic: how reforming medical education coopted feminism," Society for the Social Studies of Science Conference, Cleveland, Ohio, Nov. 4.
2011 "'Share the body': gynecological educators, strategic dualism, and the female body as subject/object," Engendering Change Conference, Northwestern University, May 20.
2010 "'It's empowering to share the body': embodied knowledge and gynecological educators," Annual Meeting of the Midwest Sociological Society, Apr. 1
2010 "Internet Use, Political Participation, and Scope: An Analysis of Media Use and Local/Transnational Issue Scope Participation," Annual Meeting of the Midwest Sociological Society, Mar. 31
2010 With Danielle Giffort, "Race and the Body: the Meanings and Implications of Racialized Body Work," University of Michigan Social Theory Conference, Mar. 12
2010 "Embodied knowledge, gynecological educators, and the subject/object body," Department of Sociology Colloquium Series, University of Illinois at Chicago, Feb. 24

TEACHING EXPERIENCE

2014-2015 Teaching assistant and laboratory instructor, Sociological Research Methods (SOC 300), University of Illinois at Chicago
2014 Instructor, Sociology of the Body (SOC 455), University of Illinois at Chicago
2010-2014 Instructor, Social Inequalities (SOC 346, SOC 245), Northeastern Illinois University
2013 Instructor, Sociology of Health and Medicine (SOC 251), University of Illinois at Chicago
2013 Instructor, Senior Research Experience (SOC 490), University of Illinois at Chicago
2011 Teaching assistant and laboratory instructor, Sociological Statistics (SOC 401), University of Illinois at Chicago
2008-2011 Teaching assistant and laboratory instructor, Introduction to Statistics (SOC 201), University of Illinois at Chicago
2010 Instructor, Introduction to Sociological Research Methods (SOC 300), University of Illinois at Chicago
2008 Teaching assistant, Sociology of Religion (SOC 246), University of Illinois at Chicago

2007 Teaching assistant, Sociology of Health and Medicine (SOC 251), University of Illinois at Chicago

PROFESSIONAL ACTIVITIES AND SERVICE

Research Assistantships

2009-2014 Claire Decoteau, University of Illinois at Chicago
2011 Center for Court Innovation, New York
2008 Chicago Area Study, University of Illinois at Chicago

Service

2008-2014 President, Sociology Graduate Student Association, University of Illinois at Chicago
2015 Student Member, *Section on Medical Sociology* of the American Sociological Association
2015 Student Member, *Section on Science, Knowledge, and Technology* of the American Sociological Association
2015 Student Member, *Section on Embodiment and the Body* of the American Sociological Association
2015 Student Member of the Society for the Social Studies of Science
2013 Co-Chair, Engendering Change, Graduate Student Conference, University of Illinois at Chicago, Mar. 14-15
2010-2007 Street Outreach Coordinator, Sex Workers Outreach Project, Chicago
2008 Editorial Assistant, *Families as They Really Are,* Council on Contemporary Families, University of Illinois at Chicago